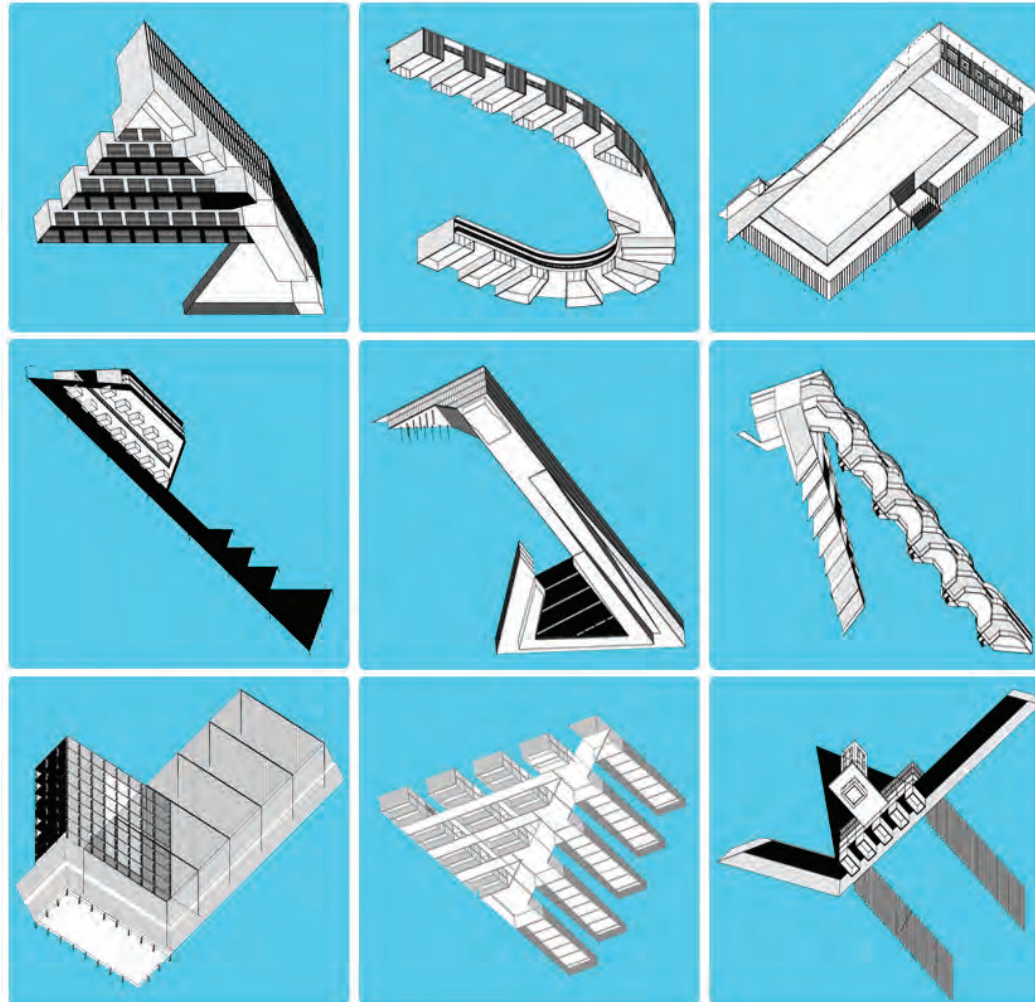


# Reconsidering Spaces Left-Over After Planning

*Suburban opportunities for diversification  
and  
Inter-nodal developmental strategies utilising infrastructural 'diagonals'*



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Declaration:

I certify that except where due acknowledgement has been made, the whole work is that of the author alone, the work has not be submitted previously, in whole or in part, to qualify for any other academic award; the content of this thesis is the result of work which has been carried out since the official commencement date of the approved research program; and, any editorial work paid or unpaid, carried out by a third party is acknowledged.

.....  
 Yohei Kinoshita  
 February 2009

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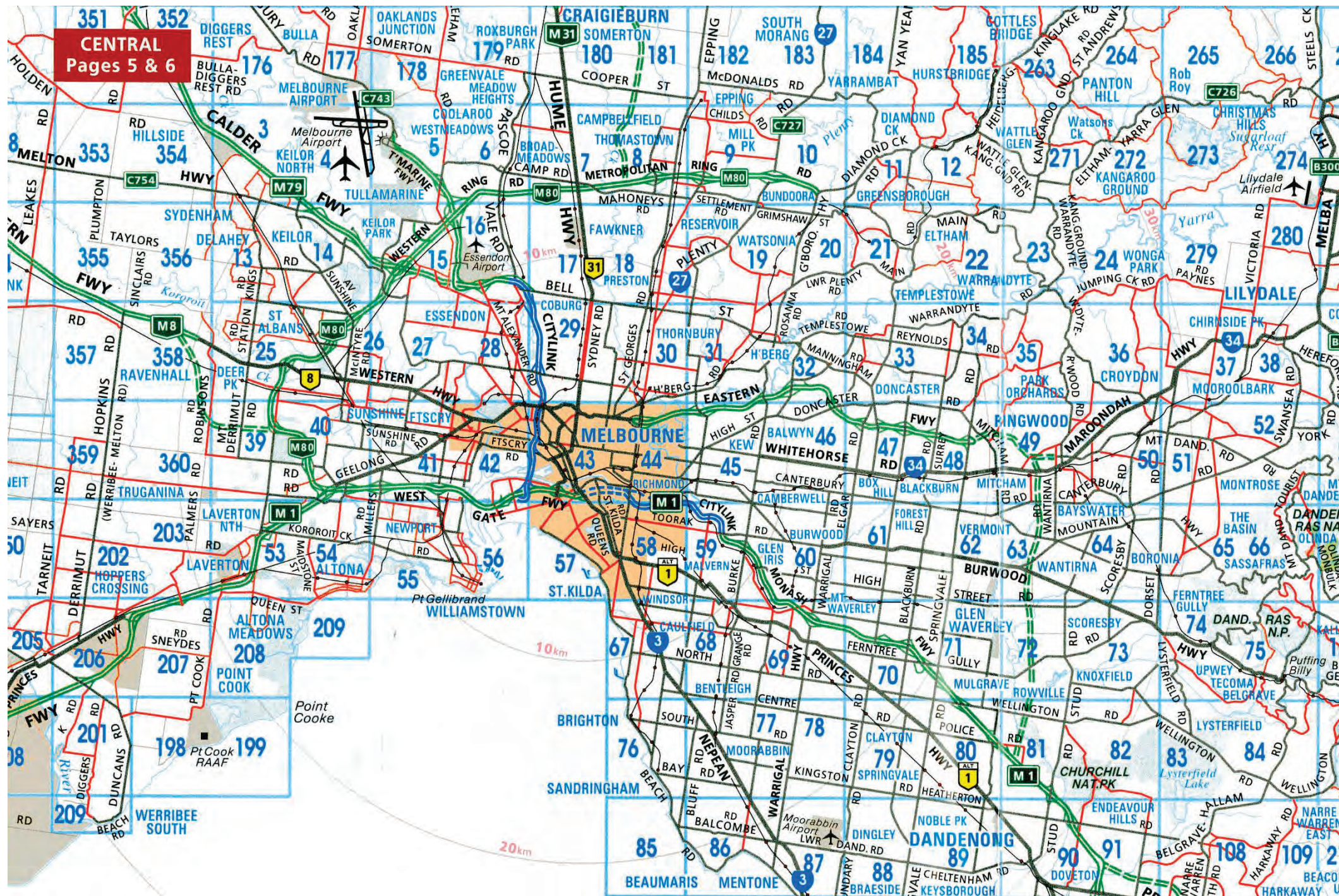


Figure 1: Current street map of metropolitan Melbourne showing the completion of the Western Ring Road connecting north to east Melbourne following the 10km growth ring in relationship to Melbourne CBD - Melway Map. p.5 -6, ed 30, 2003



# 1.1 INTRODUCTION

Using Melbourne as a model to illustrate the relationship of the city to its suburbs, this work explores the enrichment of suburbs as part of the metropolitan growth of Melbourne. This is important for decisions about types of development used for suburban expansion.

The urban structure of metropolitan Melbourne follows the hierarchical model of gravitational rings around the core (Fig. 1) with a radial dispersion of infrastructure from the Central Business District (CBD). (see Fig. 2, below)

More recent development in Melbourne has seen the realisation of the Western Ring Road and East Link, complementing the ring formation around metropolitan Melbourne. The ring road replaces historical attempts at non-radial transport infrastructure, such as the now defunct inner circle and outer circle railway lines.(Fig.3 & 4)

The concept of suburbs as villages around the city was first expounded by Ebenezer Howard towards the end of the 19th century in introducing the Garden City model.<sup>1</sup> He envisaged suburbs as nodes, connected by infrastructure and transport networks, to serve the city. The main reason for this decentralisation was to alleviate pressure on city centres with another way to meet the increased demand for accommodation caused by industrialisation. (Fig.5)

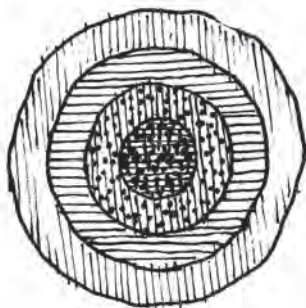


Figure 2: Sixta.G., 'A gravitational system: rings of development around a core.' This model is used as the urban structure for nodal centres, as well as cities', Urban Structures, 1971.



Figure 3 & 4 (left):

Top - 1900 map showing the historical development of Melbourne's railway network and an eastern railway link between the Heidelberg and Ringwood lines, providing circumferential connection (highlighted in red).

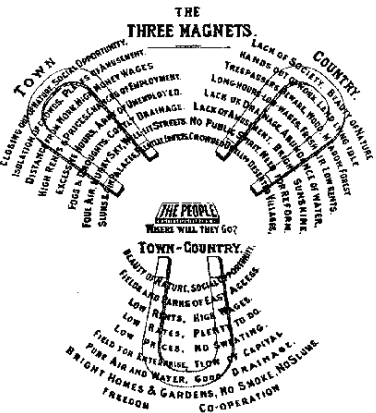
Bottom - This was abandoned in the 1950's in favour of development emphasising the radial dispersion from the CBD.

- Waugh A., Historical Railway maps of Victoria, 1860-2000.



Figure 5: 'The coming of the railways led to the ideas of urban decentralisation which were promoted by Ebenezer Howard as early as 1898. He proposed an alternative between the traditional city and the country: the idea of garden-city which would offer an ideal compromise for the growth of modern society. while these cities would be dependant on rail communications for assuring their organic links with the country at large.'

-Science Museum, London, All Stations: a Journey through 150 years of Railway History, p.54





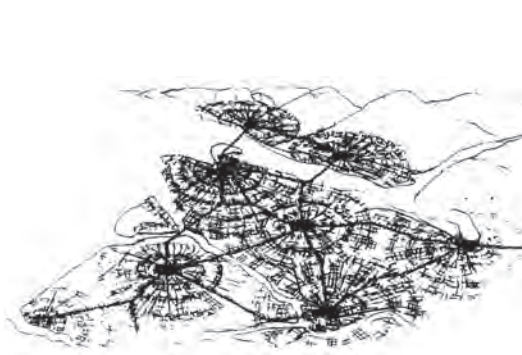


Figure 6: Constellation of nodes '...it could also appear as a cluster of municipalities with separate downtowns.

-Sixta. G, p. 16

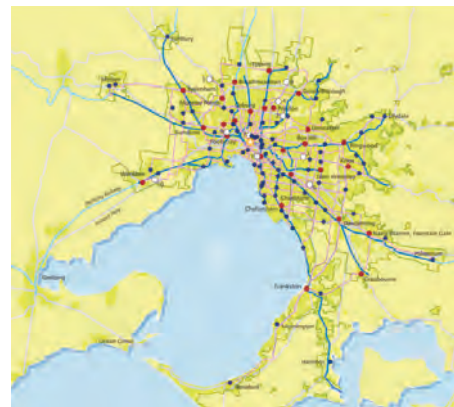


Figure 7: Activity centres as proposed by Melbourne 2030. It includes three types of activity centres: Major (Oakleigh), Principal (Broadmeadows) and Specialised (Waverley) nodes.

- Melbourne 2030, p.50



Fig. 8: An example from Melbourne 2030 of a nodal centre and its relationship to the catchment area. In the case of nodal centres, the rings of development are based on 500m walkable distance. The core of the node is often the station.

- Melbourne 2030, p. 101



Figure 9: Fiona Nixon's diagram of the relationship between nodal centres and periphery to support the periphery highlighting the potential of interstitial edge conditions.

'Transition Edges', p. 13

However the ideal role of the Garden City as an intermediate domain between city and country has had its compromises, with the benefits of decentralisation. (Fig.6)

The premise of this research is to explore the possibilities of cultivating an urban model that has relevance to the city and examine how suburbs can be diversified by enabling them to encounter similar densities as the city.

My research touches on some of the shortcomings of the current developers' model and challenges their rationale behind the economic preference for large scale development in tackling the problems of suburban sprawl.

My research started off initially with a fascination with odd corners and irregular-shaped buildings found in the Melbourne CBD and inner city suburbs. I then started to investigate the nature of the sites on which they are built and realised that, although they seem fit for their context, they also play a bigger role in relationship to the neighbourhood.

Subsequently, I discovered that they occupy a special category of land which has been called Spaces Left-Over After Planning, or SLOAP.<sup>2</sup>

This thesis focuses on SLOAP and their potential as agents for densification and diversification as part of the decentralisation of metropolitan Melbourne created by the radial dispersion of infrastructure, such as major roads and highways, train and tram lines and power lines.

The identification of SLOAP on which my projects are sited is achieved through the examination of the infrastructural diagonals, of the radial dispersion and identifying consequent by-products in the suburban fabric.

Motivation for finding these sites (SLOAP) is, in part, a response to the agenda of the Victorian state government (documented in Melbourne 2030) to develop more nodal centres in existing suburbs as well as developing new suburbs linked to infrastructural development. (Fig.7)

My aim is to give definition to these new territories, which includes the use of SLOAP to mediate the nodal centre with nodal peripheries. I intend to systemise an approach that is informed by the conditions of sprawl at the periphery to give character to the urbanisation of inter-nodal developments.

In so doing, I collectively redeem SLOAP and re-introduce them into the community

as I increase the suburban civic realm. This is an attempt to diagnose the mono-cultural "wasteland" caused by the separation of the core and the periphery (Fig.8) and also to recycle under-used land resources as local community assets.

It is from this interest that SLOAP are examined as opportunities for both diversification and densification of the suburban fabric, and sought after for their unique potential of harnessing the intensity essential for the revitalisation of the current suburban fabric.

Spaces Left-Over After Planning account for marginal lands in the periphery and are characteristically different from real estate valued land. The ones I am interested in are found specifically at intersections between systems of planning when infrastructure meets the suburban fabric causing in-between spaces to be produced. Others are also important as leftovers from real estate development which have been described as 'terrain vague'; a term which also encompasses 'derelict' and 'no-man's land'.<sup>3</sup>

In planning terms, most of the sites I use are categorised under functional open space such as nature strips and easements, re-zoned areas, and as reserves but not 'designated'

open space. Nevertheless they are imbued with a degree of informality which appeals to us as buffers in contrast to the rigidity of most commercial and residential developments found in suburbs.

The departure point for this research is in critiquing the centralised town centre model (Fig.8) as promoted in Melbourne 2030 to demonstrate the benefits of the inclusion of SLOAP as well as the use generally of marginal lands as supported by Fiona Nixon<sup>4</sup> in developing an alternative model to the town centre. (Fig.9)

I believe that the centres themselves cannot be depended on, as the only point of interface for planning and architecture, for the creation of the public / civic realm. Instead, my proposed use of SLOAP highlights the need for other forms of nodes, namely in the secondary grain of the built fabric.

My emphasis is on a typological solution to address the issues of public / civic realm by referring to the history of suburban 'modernist' buildings as my precedents. Elsewhere the discussion includes the consequences of nodal formations with the Garden City model which most suburbs in Melbourne are based on since the post WW-I period.



## 1.2 CASE STUDY SUBURBS

*“...Thus Melbourne began as a typical post-industrial revolution but pre-car city and, again typically, developed outwards with radial rapidity under the unfettered influence of land speculation and, later the car. Only a few circumferential routes were created and they were all fortuitous amalgams of east-west or north-south ‘compass’ roads based - not on topography or travel need - but on the surveyors’ section lines.”<sup>5</sup>*

As suburbs depend on the infrastructure and industries that decentralisation brings, the notion of decentralisation concerns all suburbs. Many of the suburbs in Melbourne were townships prior to becoming engulfed by suburbia.

Oakleigh, Waverley and Broadmeadows are examples of former townships. These three case study suburbs reflect both pre- and post-war settlements following the north-west (Fig. 10) and south-east (Fig. 11) distribution of infrastructure across Melbourne.

Oakleigh, for example is a township established back in the 1860s in tandem with the industrial development that accompanied the Dandenong rail line. Oakleigh, which originally was farmlands, now falls well within the current metropolitan boundary. With the development in railway transport, industrial settlements serviced by the railway were later infilled by residential developments. (see following page, Fig. 12.)

Broadmeadows, on the other hand is characteristically a ‘dormitory’ suburb en-route to Sydney. It started off as a parish in the late 1850s with its own township near Moonee Ponds Creek. What followed, with the surveyors’ grid dividing up farmlands later, became the overlay for the vehicular transport network supporting the town centre.

With Broadmeadow, infrastructural development of major roads (Pascoe Vale Road and Hume Highway), large housing estates were constructed, encouraged by new industries (the Ford factory followed later by Ericsson’s headquarters) occupying larger blocks of real estate.

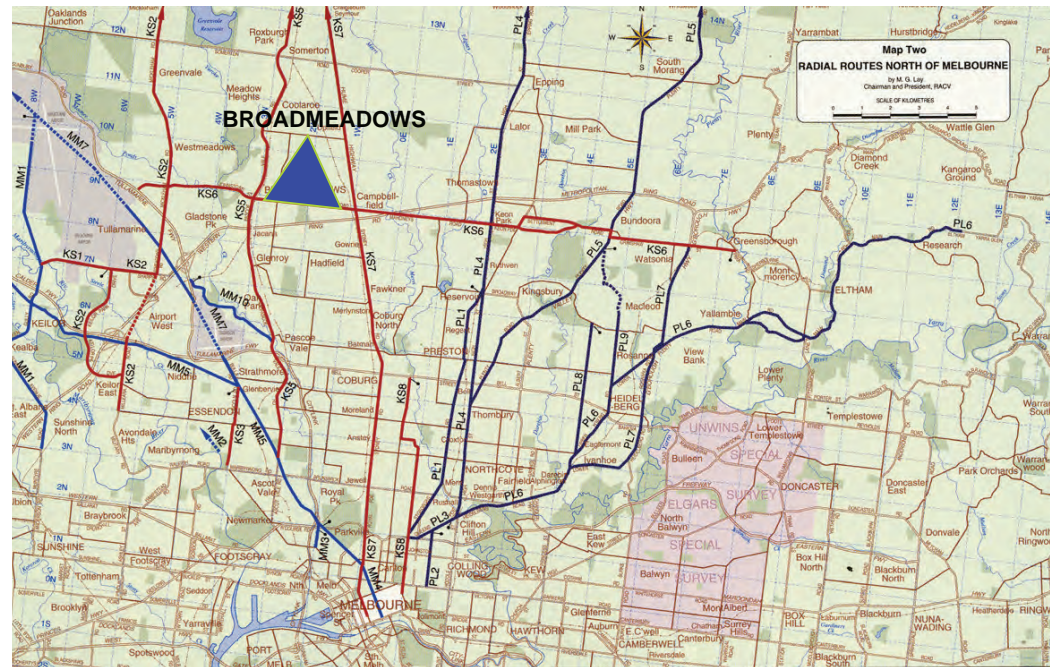


Figure 10. Location of Broadmeadows in relationship to Melbourne CBD in north west development of infrastructure.

- Melbourne Miles, Map two:  
Radial routes North of Melbourne

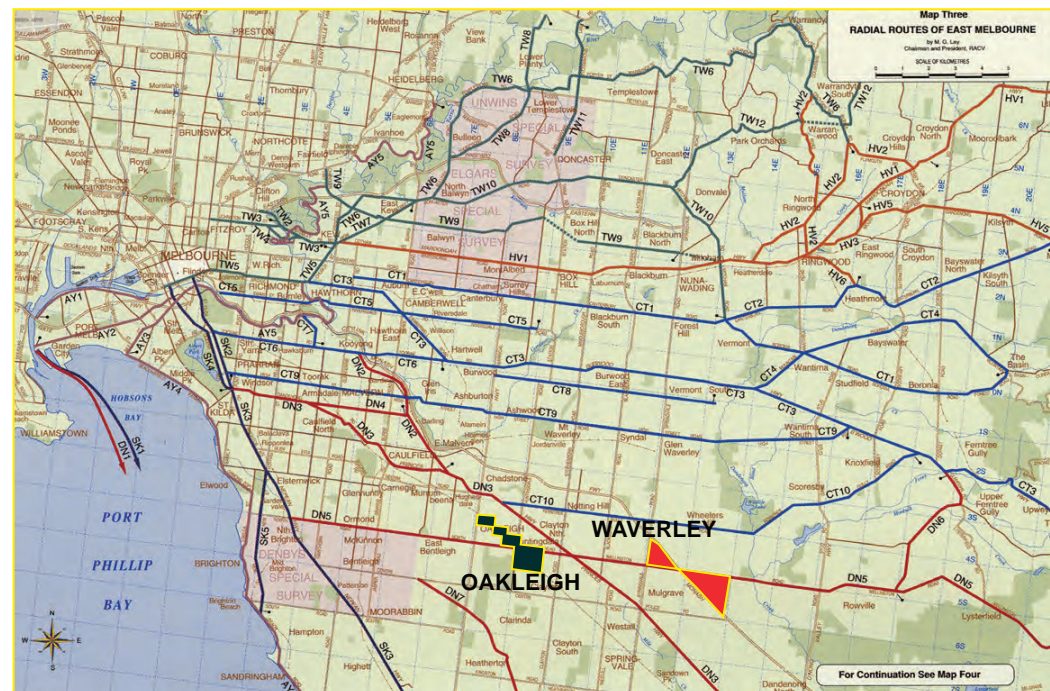


Figure 11. South east development of infrastructure from Melbourne CBD showing the locations of Oakleigh & Waverley case study areas.

- Melbourne Miles, Map three:  
Radial routes East of Melbourne



Like Oakleigh, Broadmeadows falls within the 20km growth ring in relation to the CBD, but is closer to the edge of the metropolitan boundary. (Fig. 13)

Both Oakleigh and Broadmeadows are considered important locales for the state government's Melbourne 2030 plan to construct major transport nodes. Oakleigh station is planned as a station precinct and Broadmeadows as a transit node, with the redevelopment of a town centre next to the station to become a transport hub in strategic proximity to Melbourne's international airport.

Waverley is a more recent suburb. It represents the institutionalisation of the suburban fabric with large-scale developments to accommodate educational facilities and research amenities (e.g. Monash University Campus). Its planning of residential settlements reflects the exclusivity of precincts located on the outer limit of the metropolitan ring. Waverley Park development is an example of developers (i.e. Mirvac) converting a large plot of land, a former sports ground known as VFL Park (Australian Rules Football ground) into a residential enclave comprising a defacto "gated community".<sup>6</sup> Waverley falls under the same council as Oakleigh paralleling infrastructural development with its own Monash Freeway. (Fig. 14)

The rationale behind the selection of the three case study suburbs is related to the different types of infrastructural developments. They contain: Oakleigh, following the railway line; Broadmeadows, dealing with a combination of both vehicular and railway infrastructure; and Waverley, dependant on vehicular transport alone. My analysis reveals the impact of infrastructure upon the suburban fabric and highlights the theme of infrastructural diagonals intersecting with the non-diagonals of the suburban fabric to form open spaces of which some of which are considered as SLOAP. (Fig. 15)

These suburbs contain both roads following the surveyors' grid and the street patterns following the 'Garden City' layout. These combined with the accommodation of metropolitan-scale infrastructural diagonals incumbent on the radial structure of decentralisation, define the primary grain of the suburban fabric.

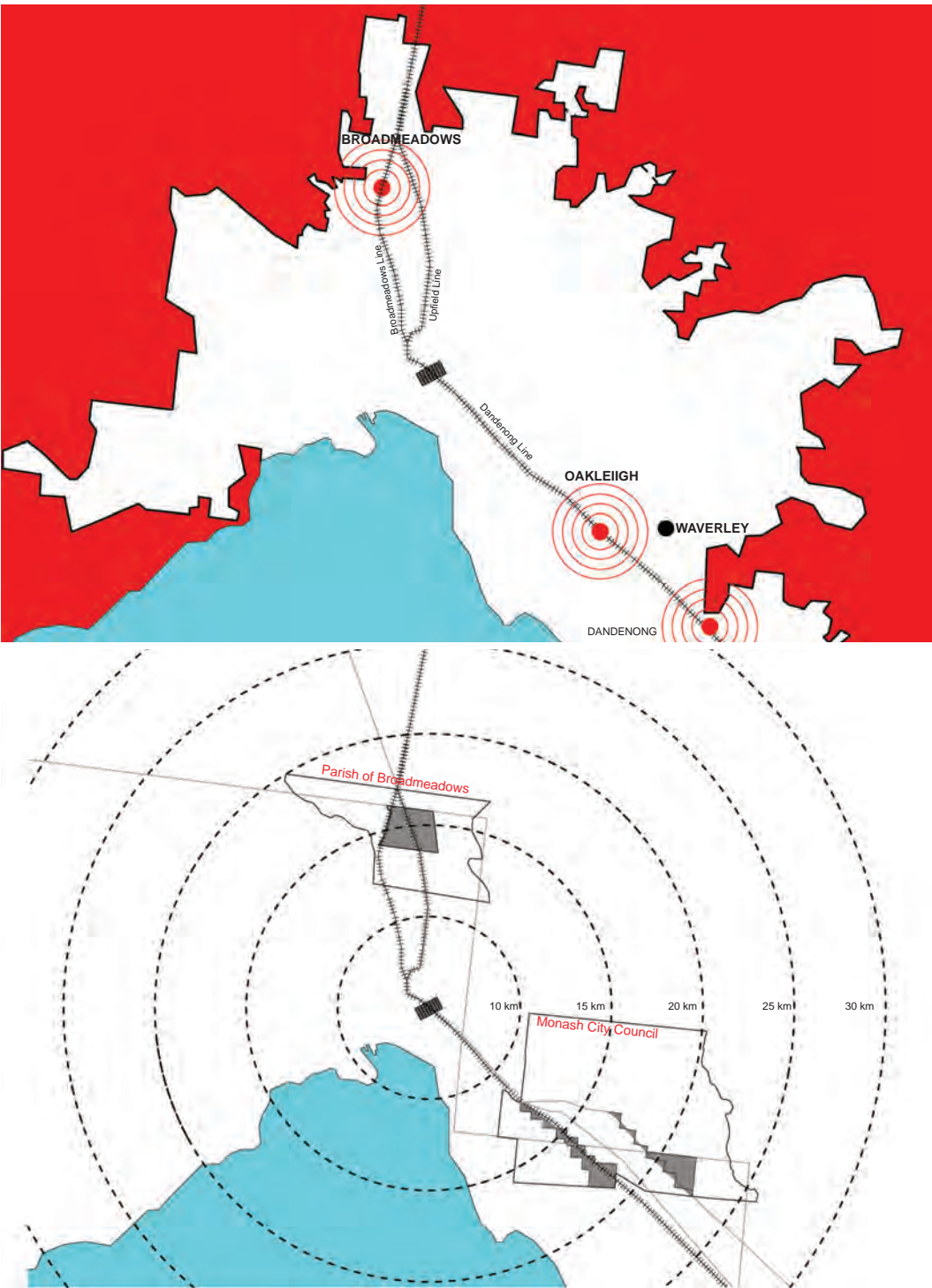


Figure 12. The location of relevant nodal centres in relation to the metropolitan boundary and railway. (Note: Waverley is not a nodal centre as such whereas Oakleigh, and Broadmeadows are.)

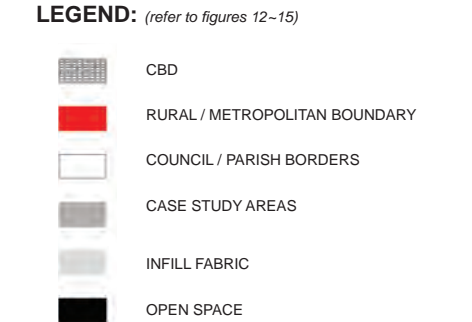


Figure 13. Parish of Broadmeadows and Oakleigh / Waverley under Monash Council showing infrastructural distribution in relation to Melbourne CBD (with case study areas hatched).



Figure 14. Infill fabric between infrastructure and implied geometric patterns.



### 1.3 METHODOLOGY

The combination of metropolitan-scale elements with infrastructural diagonals incumbent on the radial structure of decentralisation define the primary grain of the suburban fabric.

One of the objectives of this research is to articulate the role of architecture within this 'primary' grain produced by infrastructure in an attempt to reconcile planning frameworks with opportunities for the built environment of suburbs.

My investigation looks at the significance of SLOAP as being symptomatic occurrences of unique locations, which distinguish them from other open spaces.

Left-over suburban open spaces have been described by Xaveer de Geyter as 'the space that was previously coloured green' to coin his term 'negative space' which he describes as 'not normally consciously designed or planned.'<sup>7</sup> These include narrow long pieces of land, voids, types of in-between spaces and are usually polygonal rather than rectilinear.

I argue that the lack of consideration in regard to the use of marginal land is due to 'the increasingly reductive mode of use of urban space and territories that has made the consolidated city less and less attractive with respect to other forms of settlement, such as ones represented by the scattered city'.<sup>8</sup>

This also implies the way in which negative spaces are treated which, according to Geyter lacks attention. 'Despite this high proportion of negative space and zoning plans, for instance, show how the functional subdivisions are extremely limited in comparison with that of the built space or infrastructure.'<sup>9</sup>

My methodology looks at the possible relationship between infrastructural overlays of zones, street patterns and morphology (i.e. aerial photographs) to guide the application of the Melbourne 2030 model of nodal development with the planning of individual centres according to the key characteristics of the type of infrastructure.

Figure 15. (bottom left) Distribution of open spaces with case study SLOAP (including planned parks and 'designated' open space).



My analysis takes a fresh look at the state of the suburban sprawl by reversing the hierarchy of the built and un-built environment in order to give SLOAP an equal focus and status as a new form of collective space in the suburbs as Geyer would say in regard to this new collectivity of After-Sprawl:

*‘...what was once a remnant, a background to the built, is now brought into the foreground to define the image and the spatial organization of the after-sprawl’.*<sup>10</sup>

Spaces Left-Over After Planning can be empty (voids) or built spaces (derelict buildings) which can allow suburbs to expand. SLOAP by their defacto relationship to suburban sprawl, could also be described as negative spaces of ‘After-Sprawl’.

My criteria for their use are not directly constrained by the physical limitations of their boundaries but also consider the overall neighbourhood, issues of contiguity of the suburban fabric, visual connections to the surroundings and co-existence of SLOAP with their adjacent fabric, including other open spaces. (Fig.16 & 17)

In their current state, most SLOAP are non-descript and informal. My intended use involves their function as thoroughfares for the suburban fabric enhancing permeability and also to support community infrastructure, yet at the same time maintaining their informality, which is thought vital to their role as a whole for the operation of their local neighbourhood.

This is a temporary nature of some SLOAP, for instance using flood zones to accommodate recreational activities, transient access as walkways and enabling mixed uses. These sites do not have fixed property values based on permanent occupancy. As my thesis title suggests, the reconsideration of spaces left-over after planning brings SLOAP into the foreground as focal points for diagnosing the current suburban fabric.

I also introduce new gradations to the current categories of zones (Fig.18) used by planners through analysing the position of SLOAP in a figure / ground relationship.

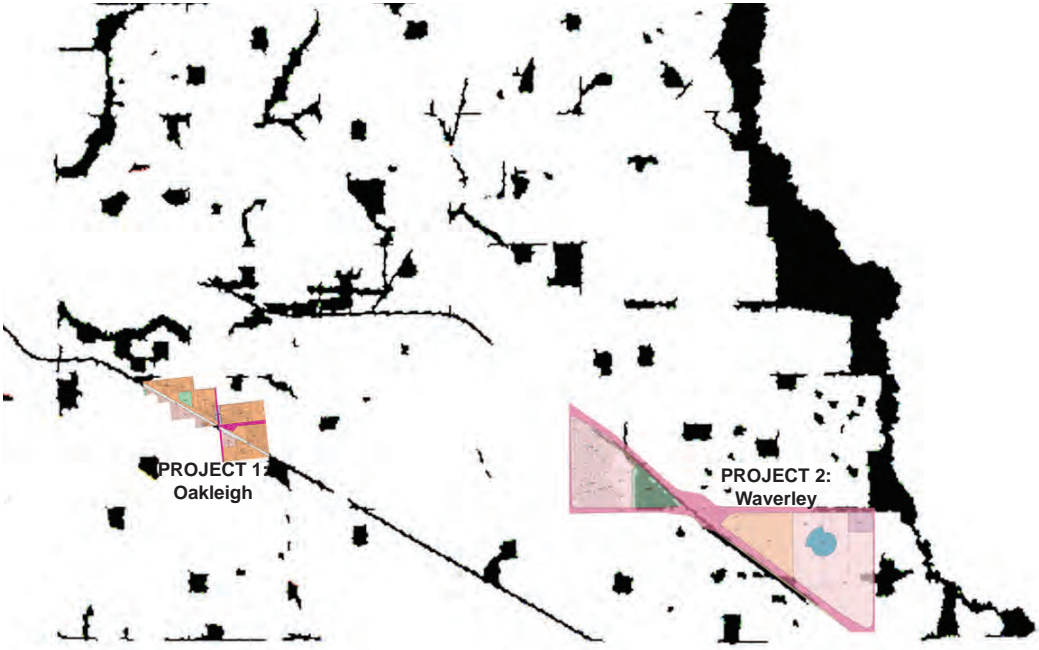


Figure 16. Map showing the negative space in the case study suburbs of Oakleigh and Waverley, south east Melbourne.



Figure 17. Map showing the negative space in the case study suburb of Broadmeadows, north of Melbourne.

<b>Business</b>		PUZ7	Public Use Zone Other Public Use
BTZ	Business 1 Zone	PUZ1	Public Use Zone Service And
BZ2	Business 2 Zone	Utility	
<b>Industrial</b>		PUZ4	Public Use Zone Transport
IT1Z	Industrial 1 Zone	RDZ1	Road Zone Category 1
<b>Public Land</b>		<b>Residential</b>	
PPRZ	Public Park And Recreation Zone	MUZ	Mixed Use Zone
PUZ5	Public Use Zone	RTZ	Residential 1 Zone
PUZ2	Cemetery/crematorium		
PUZ6	Public Use Zone Education		
	Public Use Zone Local Government		

Figure 18. Current zonal categorisation of uses as defined by the Department of Planning and Community Development, Victoria.



## 1.4 STRATEGIES

*'Circumferential routes do not occur naturally during the urban development, unless there is a clear pre-existing need to bypass a town. In the pre-car days, during the journey in the countryside every village passed was an essential sub-destination and, in a city, its suburbs were dormitories serving the employers located around the city core. Thus cities in general have no natural inheritance of non-radial routes..''<sup>11</sup>*

At first impression, my overall design tactic of dispersing the centrality allocated to the centre may seem contradictory to the Melbourne 2030 goal of densifying nodal activity centres; however, my analysis is to clarify some of the discrepancies between Melbourne 2030 and the existing reality of the suburban condition.

My design tactic works at the immediate level of consolidating both informal and formal aspects of SLOAP to repair the civic realm. The selection of sites from each case study suburb is based on the identification of suburban 'fabric that acted as an object' following a similar gesture as Gandelsonas' <sup>12</sup> method of drawing out other geometries and textures of the urban grain which appear as a result of the system of planning. (Fig.19)

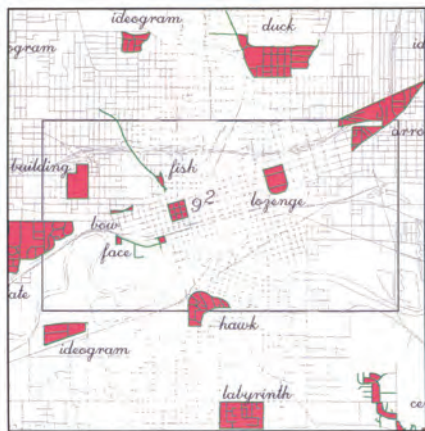


Figure 19. (above) Mario Gandelsonas' ideograms from his Des Moines project, described: "...the distinction of the grid induced by the topography are read in their figural implications, adding a mythological dimension to the plan".

- X- Urbanism, p. 194

Under Melbourne 2030's definition, Broadmeadows is considered as a principal activity centre (transit city), Oakleigh as major activity centre and Waverley is a neighbourhood activity centre as part of the specialised node.<sup>13</sup>

For example, Oakleigh reflects the positive use of SLOAP from infrastructural interruptions upon the suburban fabric which provides opportunities for creating an intermediate fabric. At the same time, the use of SLOAP reinforces the infrastructural diagonal as boundary.

The strategy of 'reinforcement' derives from prolonging the influence of the proposed station precinct at Oakleigh in a linear development between two stations focussing mainly on internodal development as with the notion of 'transitional edges'.<sup>14</sup>

Oakleigh as a major activity centre is clearly delineated by the railway line with a (derelict) industrial zone on one side and a residential zone on the other. (Fig.20)

My proposed infill of SLOAP ensures that the lateral relationship continues with the internodal development by diversifying the building types along the railway line, namely with the hybridisation of industrial buildings with more dense residential types. This gives character to the neighbourhood streetscape and enhances the urban experience of built form as a new buffer to the railway line.

The strategy at Waverley consists of grafting contextual fabric onto the existing neighbourhood as well as tying in new developments by using secondary infrastructure as a guide.

The term 'stitching' describes the use of SLOAP attached to the electrical transmission easement cutting through the various enclaves as a common theme for structuring civic / public spaces in Waverley. (Fig.21)

By expanding some of the more traditional roles of infrastructure with new programs, the shared notion of perception and accessibility towards localised amenities such as a recycling centre and water processing plant can be included.

With the example of Waverley, the geometric pattern of the development of enclaves is also looked at as a spatial denominator to the character of SLOAP. Collectively SLOAP can map out the continuation of the influence of the infrastructural diagonal (Monash Freeway), back to the centre.

The existence of geometries, other than the ones involved in structuring nodal centres, is evident in the patchwork formation of territories over the prescribed zones by planning.

These geometries can then become means to integrate the current suburban fabric with the spatial conditions attached to leftover spaces. In this way SLOAP form sub-destinations and operate as secondary focal points for the neighbourhood.

These sub-destinations play a critical role in mediating zonal changes as well as navigating desired paths both in pedestrian circulation and vehicular loops through the different infrastructural boundaries and territories.

This is found to be particularly the case in Broadmeadows where irregularities are caused by infrastructural development and patterns informed by other guiding principles of urban structures such as the land surveyors' grid or topographical constraints. The shape of the blocks and plots caused by the combination of influences can give orientation to the surrounding fabric by the use of SLOAP. (Fig.22)

In Broadmeadows, the selected SLOAP are intensified by utilising "dormant" mechanisms. I have found in some of the negative spaces of sprawl to allow for their co-existence with other uses. The dormant mechanisms of SLOAP are identified as 'inverted corner' (e.g. BRM1), 'asymmetry' (e.g. BRM2) and 'pivots' (BRM3).

My proposed programs gather collective interest in making civic / public buildings out of SLOAP and raise awareness of their presence as part of the suburban civic realm. The act of occupying SLOAP instead of leaving them open can turn other planning gaps and fissures into useful resources as catalysts for regenerating the existing suburban fabric and renewing interest in them.

My concern is not the origin of SLOAP, nor in subscribing to the urban structure of the city but, to find an architectural voice for sounding the typological embodiment of the urban condition created by the nature of the city in cultivating local suburban vernacular.

### LEGEND: (Refer to Figures 20~22)

	NODAL CENTRES
	CATCHMENT AREA (500m)
	LAND SURVEYORS' GRID (2km)
	AREAS AFFECTED BY INFRASTRUCTURE (RAILWAY)
	AREAS INFLUENCES BY VEHICULAR TRANSPORT
	DEVELOPMENTAL PATTERN (i.e. desired path / tendency)
	INSTITUTIONS (e.g. industrial, educational, etc.)
	INFILL PROPOSALS
	RAILWAY / TRAIN STATION
	'DESIGNATED' OPEN SPACE (e.g. flood zone, green reserves, parks, etc.)

Figure 20. Strategy of 'Reinforcement' (Project 1) using diagonal infrastructure to enforce edge conditions formed by SLOAP.

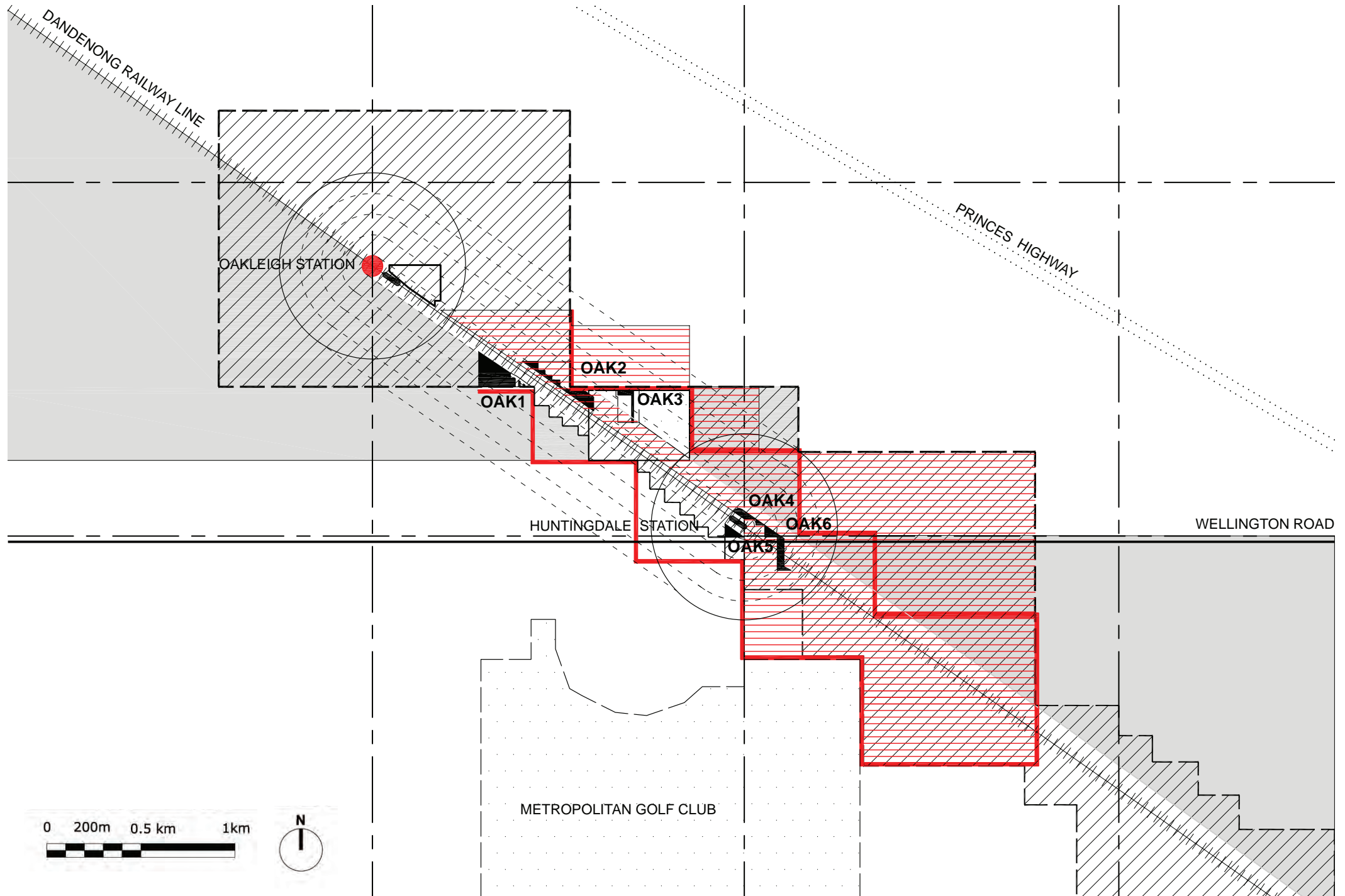




Figure 21. Strategy of 'Stitching' (Project 2) using secondary infrastructure (i.e. electrical transmission line easement) to form geometric connectivity of SLOAP.

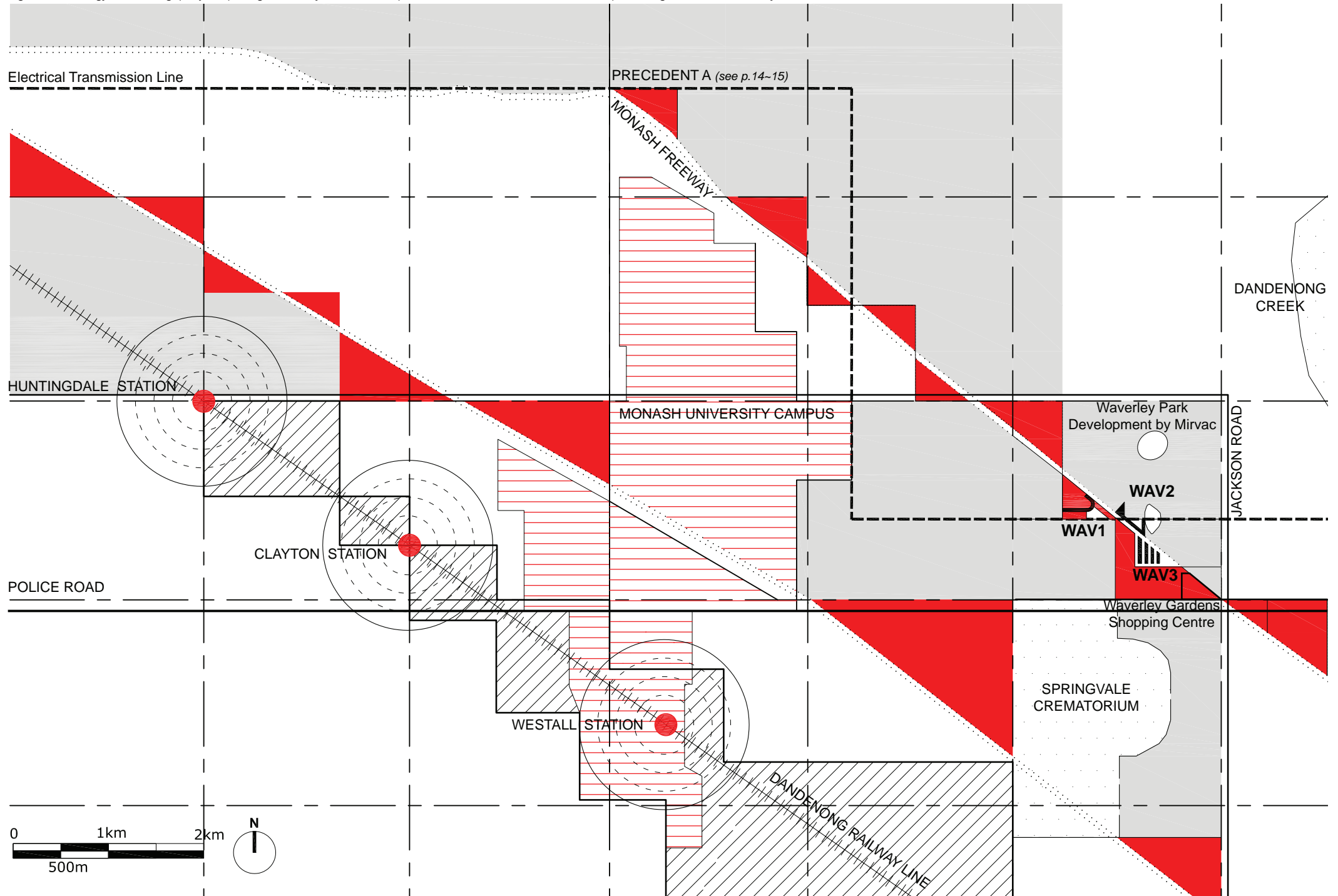
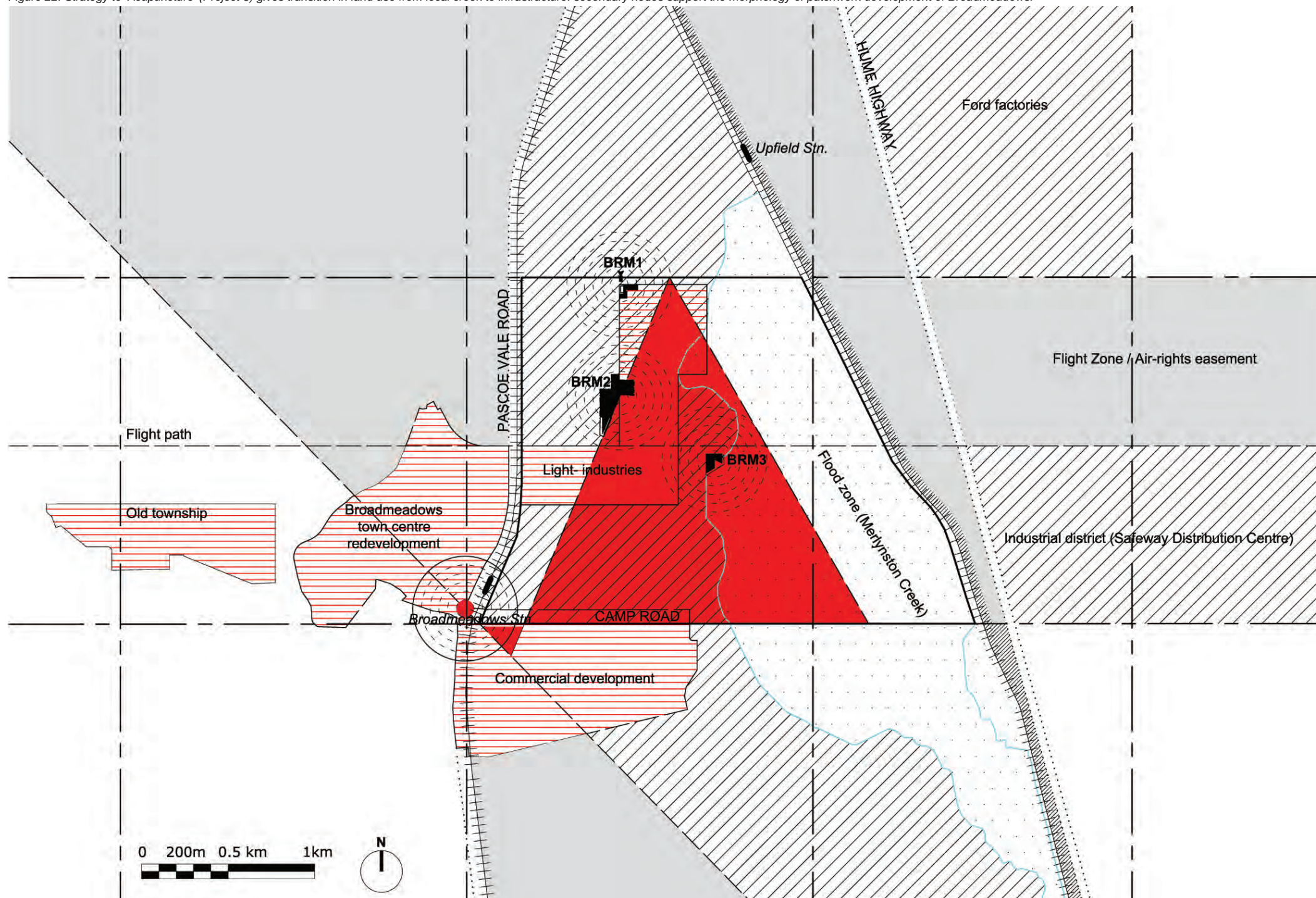


Figure 22. Strategy to 'Acupuncture' (Project 3) gives transition in land use from local creek to infrastructure. secondary nodes support the morphology of patchwork development of Broadmeadows.





## 1.5 DEFINITION

The term “Spaces Left-Over” comes from the townscape movement of the 1950s in England.<sup>15</sup> Its focus was on waste management of land resources and post-rationalisation of open spaces that are both by-products as well as necessary for developments. The townscape movement agenda was aesthetic in regard to treating the neglected conditions of SLOAP which had tendencies towards dilapidation and under-utilisation. (Fig. 23) The characteristics of SLOAP are analogous with pocket-handkerchief spaces, community backyards, urban oases, abandoned sites, sub-standard plots and sloping ground. (Fig. 24)

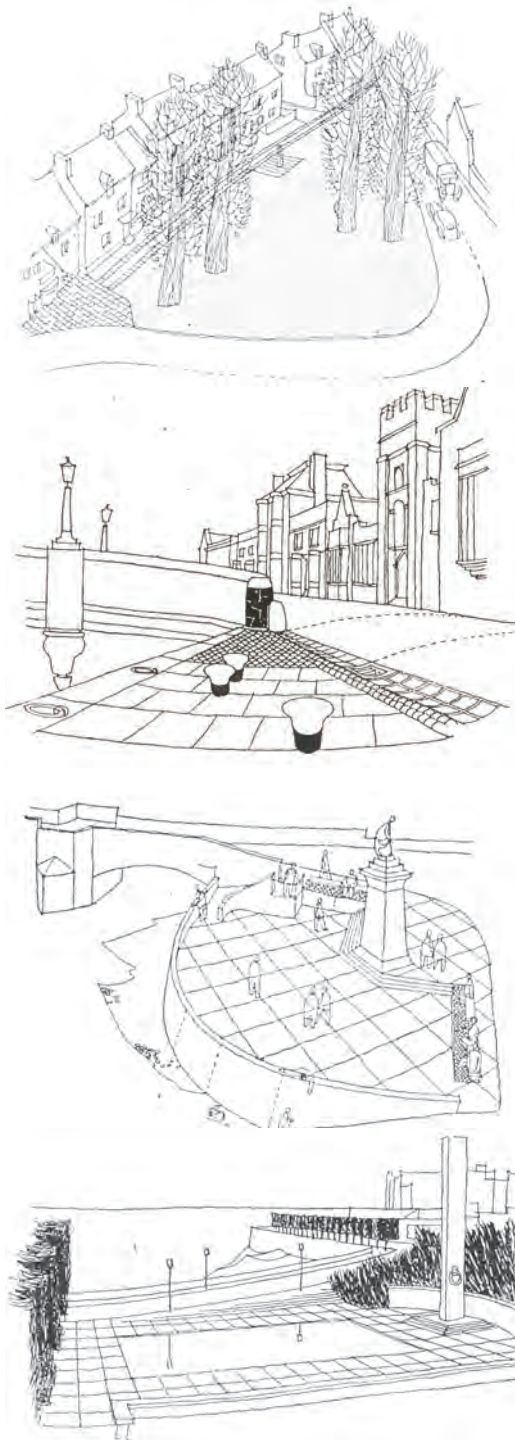
Spaces Left-Over After Planning are marginalised because they are divorced from the surrounding context, but at the same time they evolved historically from context.

There are three approaches for the categorisation of use for SLOAP in the future. One is that we could try to forge the original relationship to their former surroundings; two, they could engage in a new relationship to reinforce the current as well as future proposed urban context; or three, we could reinvent their status with no relationship to their previous use.

My challenge has been how to make sense out of their current existence and incorporate their unofficiality into a proper definition and new role. What I definitely do not want is the treatment of SLOAP as urban openings or fragments to be hidden as manicured landscape or to have their current informal uses ignored.

In architectural terms, my work is about the compositional and configurational occupation of SLOAP. The compositional elements to my proposed buildings make legible the junctions inherent in their location and characteristics. My configurational intention for the proposed series is to form contiguity over infrastructural overlays by using residual fabric to express the architecture of intersection giving parallels to the ideas behind the creation of “Pet Architecture”.<sup>16</sup>

Figure 23. Examples of Spaces Left-Over, illustrating the characteristics of once being ‘part of something else, ...they have become visually divorced from their parents’.  
- Architectural Review, October 1954, p.234 (right)



To me, ‘Pet Architecture’ is not only about small buildings occupying in-between spaces of urban fabric, but also as a type of barometer for ‘accurately showing in its size and shape, the unique location of buildings to ‘...become eye witnesses to urban changes’, as described by Yoshiharu Tsukamoto and Momoyo Kaijima.<sup>17</sup> Their investigations into the genesis of this peculiar type of architecture coincides with my interest in modernist buildings in Melbourne which I see as possessing similar qualities of ‘resurfacing differences in concept of building plots, construction technique and ways to customize’ according to urban changes.<sup>18</sup> (Fig. 25)

By ‘modernist’ I do not mean the populist notion of the type of buildings ‘representing the new city’<sup>19</sup> but buildings from the ‘heroic’ period of the modernist movement in Melbourne, which prevailed from the 1950s until their virtual disappearance in the 1970s.<sup>20</sup> (see Fig. 26)

The modernist ideal of the ‘social representational character of buildings’<sup>21</sup> and their collective agenda are now devoid of meaning. They have become relics ‘allowed to speak simply of its own formal conditions’.<sup>22</sup> This view also relates to Vilder’s search for what he calls ‘third typology’ as a criteria for the production of architecture.<sup>23</sup>

Modernism never became mainstream in sub-urban Melbourne architecture; examples which remain are remnants within the landscape today. In hindsight, they form part of the taxonomy of past suburban types, a local vernacular architecture that took shape with the sub-urbanisation of former townships from post-war Australia. These relics have also become buildings ‘...foreign to the urban systems, mentally exterior to the physical interior of the city, appearing as its negative image as much in the sense of criticism as in that of the possible alternative.’<sup>24</sup>

My architectural proposition is to apply Sola Morales’ above definition of ‘terrain vague’ to modernist buildings. This renews a sensibility towards modernist language by appropriating them with a new meaning and reinventing the civic typology. My intention is to use a modernist language in the context of contemporary suburbs to integrate civic / public realm into the suburban neighbourhoods by exploiting SLOAP.

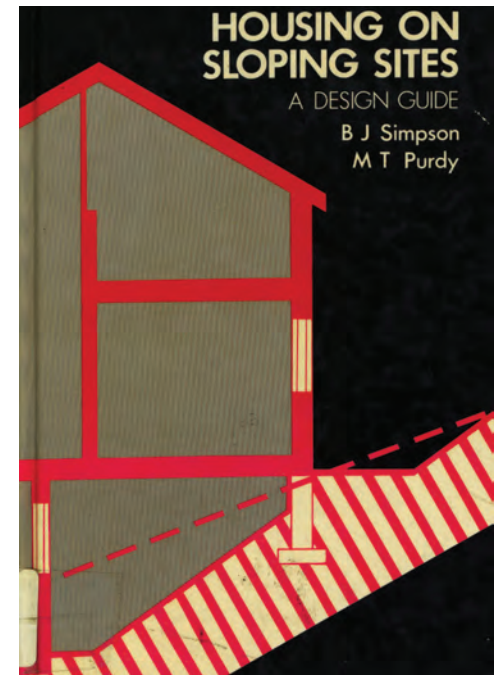


Figure 24. Front cover of the book where the term, SLOAP was first used, showing the example of the ‘cut-and-fill’ method of construction used for sloping sites.

Figure 25. Exemplar sites from Pet Architecture, (clockwise sites left-over from road widening, interruption of old fabric, gaps between urban fabric and infrastructure, urban fissures.

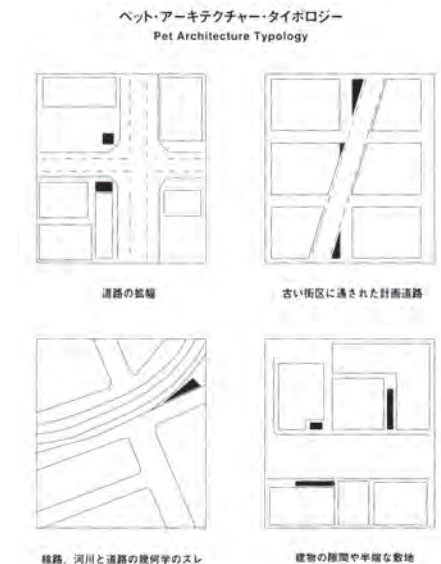






Figure 27. The location of the motel (a) in front of Royal Parade Park is implied as a junction with a bypass road (marked in red) addressing the open spaces in front.



Figure 28 . Aerial photograph of shed-type buildings at Royal Melbourne Showgrounds. This is one of the remaining large Crown lands in Melbourne located close to CBD in Flemington. (Photograph: courtesy of RASV)

Figure 26. Examples of modernist buildings from inner city Melbourne and suburbs from 1950s to 1970s (a~d):

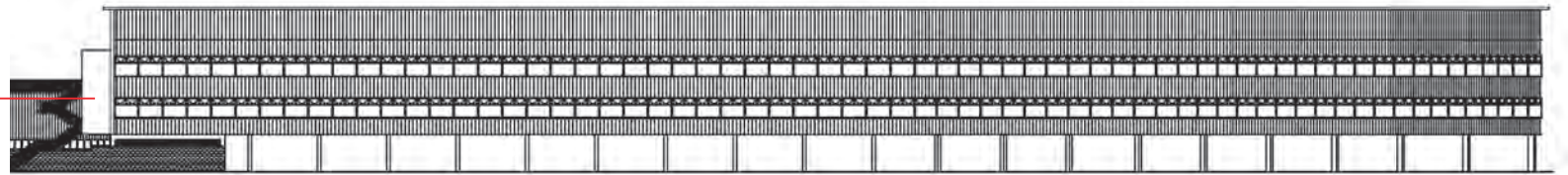
a. Suburban motel at Parkville showing repetition along the facade.



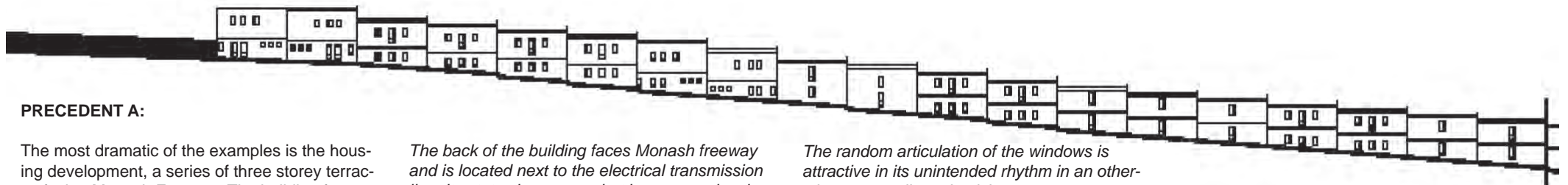
b. Industrial type building at Flemington used as a Dogshow shed at Melbourne Showgrounds, Flemington. The building faces a triangular lawn used for dog show events on the inner side.



c . Grandstand at Melbourne Showground wrapping around an oval at Melbourne Showgrounds.



d. Terraced housing at Cranbourne. The Facade of the terraced housing on an estate block edging the Monash Freeway at the beginning of the infrastructural diagonal. (Precedent A).



#### PRECEDENT A:

The most dramatic of the examples is the housing development, a series of three storey terraces facing Monash Freeway. The building forms an edge to the residential precinct which was finished in the 1980s. It is an earlier version of the suburban enclaves that followed in Waverley. (See Fig. 35 for location map)

The back of the building faces Monash freeway and is located next to the electrical transmission line. Its status has somewhat become an iconic significance for freeway users. The 'habitable' wall forms a back drop to the highway as well as act as a sound barrier to the housing estate on the inside.

The random articulation of the windows is attractive in its unintended rhythm in an otherwise mute wall emphasising:

- repetition of architectural elements
- informal and formal fronts
- adjacency to infrastructural boundaries
- horizontal emphasis on built form



Figure 29: Back face to the housing block, (Precedent A) facing Monash Freeway. It also occupies a SLOAP attached to the electrical transmission line easement which appears later in the case study at Waverley



Figure 30: The housing estate sets a precedent for later suburbs along the Monash Freeway including, Waverley Park by Mirvac. The development model includes a shared open space with an artificial lake and some community amenities such as local tennis courts.



Figure 31: Street map of the housing development at PRECEDENT A. The site forms a large triangular plot of land at the beginning of the infrastructural diagonal caused by Monash Freeway.



Figure 32: Figure / ground relationship of the housing block facing the Monash Freeway within the residential enclave. It forms a backdrop to the estate on the inside and reinforces the infrastructural boundary facing the freeway. The 'habitable wall' forms part of the large elements enclosing the enclave together with landscape elements.

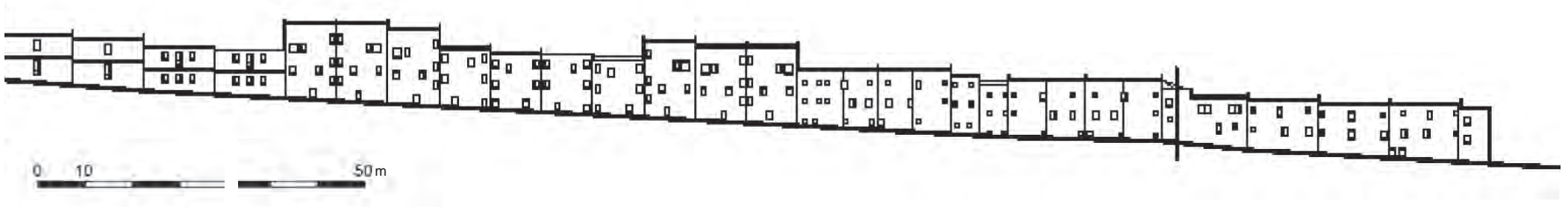




Figure 33. Front elevation to the housing estate (Precedent A) showing the articulation of the facade which differs vastly from the treatment at the back (see Fig.29)



## 1.6 THEORY

The notion of continuity with 'the traditions of the city'<sup>25</sup> is critical to the expansion of the suburbs with regard to residual spaces. Morales describes this urgency as 'opposed to the city and distinctness with which the strange world presents itself to us, so too the treatment of the residual city should be undertaken from a contradictory complicity that would not shatter the perspective elements which maintain its continuity in time and space'.<sup>26</sup>

My aspirations towards the treatment of SLOAP also reflect this attitude of maintaining the quintessentially 'metropolitan' context of SLOAP as part of the residual space of the city, however as off-cuts being outside the continuity of the planned, efficient and legitimated city.<sup>27</sup> Neither can the Garden City ideal of living side-by-side with nature be sustained by the persistence of the functional separation between town and country.

From this point of view, the distinction between town and country as illustrated in the Garden City model had in fact an adversary affect, an 'error' that aimed for some intermediary person, whose ties with both country and city were loose'.<sup>28</sup> In response, the modernists invented new typologies for schools, offices, sports facilities and community centres, to name a few, to suit the suburban environment and re-establish the relationship to the city.

In its historical context, the social changes during the 1950s and 1960s were revealed by modernists as a universal regret at the loss of the ideal in the realisation of the Garden City model.<sup>29</sup>

This is substantiated by sociological studies and recent researchers of the urban environment who raise clear doubts about the assumed automatic value of the sparsely built town.<sup>30</sup> Thus, the modernists' aim was to define the place of urban periphery as an advertisement for the centre by introducing the theme of landmarks.<sup>31</sup>

Their landmarks were, however, medium scale buildings which correlated the scale and density of the suburban streetscape to the scale advocated by the modern movement for cities. This approach was fundamentally different from the allocation of zones and separation of districts as a means to achieve density by town planners and urbanists alike; instead their aim in architecture was to marry site issues with a formal manipulation to accommodate density.<sup>32</sup>

An example of such endeavour was realised in Finland in 1953 where a modernist typology was injected into the local vernacular to avoid the dangers of 'either too high a density in the high-rise areas or bad services in the area of single-family home...and what is worse' of creating '...two kinds of sterility and monotony'<sup>33</sup>. This was successful insofar as their dictum on infill is concerned 'on one side of the equation,

buildings become prime and insulated, on the other, the isolation of buildings of the identifiable spaces reduces (or elevates) the status of the buildings to infill'.<sup>34</sup>

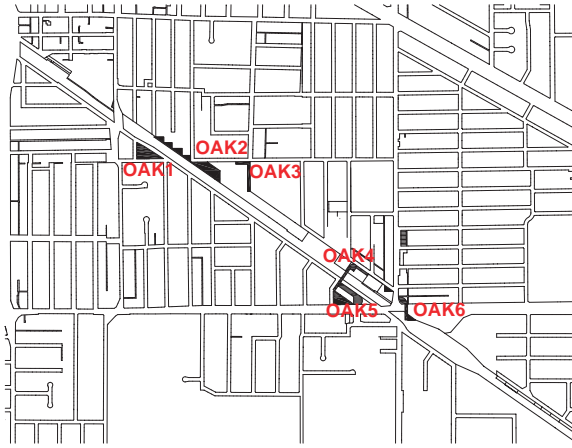
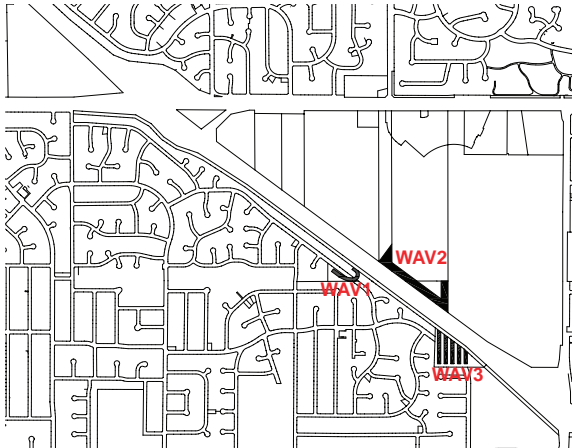
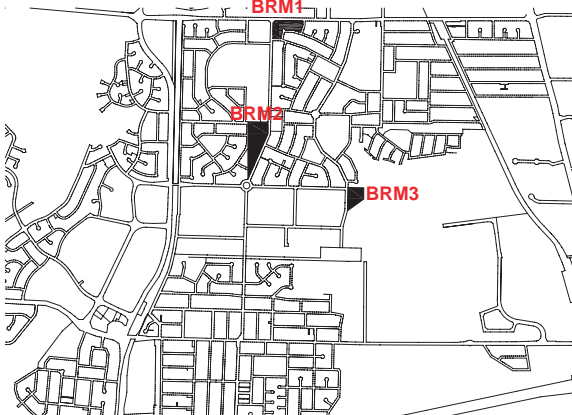
This duality allocated to the role of sites along with functionality of buildings is what I seek for my civic buildings as having the '...essentially public nature of all architecture'.<sup>35</sup> This relates more to Vidler's theory on 'third typology' and debate on the failure of town planning to establish the link with the city, favouring typological solutions to solve the issues of sprawl in lieu of the infill approach.

My strategies adopt the theoretical position on the infill method with the typological definition by Vidler that: '...the accumulated city, its public space and institutional forms, a typology can be understood that defies a one-to-one reading of function, but which at the same time, ensures a relation at another level to continuing traditions of city life'.<sup>36</sup>

In applying this meaning to modernist types, my proposed buildings utilise SLOAP as a key to continuing the traditions of the city, which in this case is in the context of metropolitan Melbourne. My architecture implements a more seamless type of development appropriate for the existing suburban fabric. The twelve selected sites used for the case studies are a vehicle for demonstrating the various techniques of: (See also Fig. 34 for case studies outline)

- a. creating fine views and local vistas
- b. visually and socially interesting spaces, of non-prime real estate interest
- c. allowing possibilities of local interpretation and definition to forms of public space
- d. using compositional and configurational value in buildings to achieve appropriate densification according to site
- e. providing landmark significance to sites to enhance existing streetscapes
- f. introducing open space to suburban fabric, especially in residential enclaves
- i. institutionalisation of the intermediate fabric
- g. mediating edge conditions between infrastructure and suburban fabric for better engagement
- h. increasing suburban conscience of built form other than of single-dwellings and awareness of local vernacular of modernist building type in suburbs.
- i. implementing decentralisation through the provision of more alternative nodes.

Figure 34. Table outlining the details to each proposed case studies and Infill descriptions to selected SLOAP:

PROJECTS	SUB-PROJECTS	DEFINITION OF SLOAP	EXISTING USE	PROPOSED INFILL	BUILDING DESCRIPTION	STREET MAPS WITH PROPOSED INTERVENTIONS ON EACH CASE STUDY SUBURB
<b>'Reinforcement' OAKLEIGH</b>  Reinforcement of local node along infrastructure in this case the railway line using:  "secondary grain".	OAK1	Unused local reserve	Redeployment of green reserve at the junction of a roundabout	4-storey apartment with row garages. Corner building	Wedge shaped Medium-scale landmark Medium density housing	
	OAK2	Railway easement	Public circulation (extg. walkway)	Elevated warehouse type residence	Linear and parallel to railway Elevated promenade	
	OAK3	Abandoned railyard	Mini Hi-rise / Recreation	Apartment Grandstand	L-shape High-rise	
	OAK4	Derelict industrial shed	Warehouses	Bus apron and overpass Basketball court Advertising hoarding	Infrastructural-extension Constructed ground	
	OAK5	Overhead freeway bypass	Egress to station underpass	Terrace housing	Medium density residence	
	OAK6	Major road junction	Open-air car park	Bus ticketing facility Petrol station Car park amenity	Junction infrastructure Small-scale amenities	
<b>'Stitching' - WAVERLEY</b>  Grafting of contextual fabric to form contiguity by the use of:  "Secondary Infrastructure"	WAV1	Junction of nature strip, reserve & electrical transmission easement	Nature strip Local church Green reserve	Recycling centre Tennis / squash club Church hall	Hook-shape Collective Low-rise building	
	WAV2	Left-over land from Waverley Park development	Earmarked site by Monash coucil for redevelopment	Water processing plant Swimming centre Garden centre	'Habitable' Wall Large-scale building Landscape element	
	WAV3	'Cut and Fill' left-over from freeway development.	Walkway to existing shopping centre (Waverley Gardens) earmarked by coucil for collective housing.	Community housing with Garden allotments	Finger-shaped Meduim-density Low-rise	
<b>'Acupuncture' BROADMEADOWS</b>  Dispersion of nodal centre to nodal peripheries using:  "Secondary Nodes"	BRM1	Unused corner plot	Neighbourhood car park Green reserve	Local police station Post office Basketball court	C-shaped Elevated Court Grand stairs	
	BRM2	Major roundabout road adjustment	Open-air car park to local supermarket and mall	Small office / Home office Muti-storey car park	V-shape Large-scale building Inner courtyard	
	BRM3	Flood zone Water Easement	Off-road bike track	Golfing range Recreational centre Path to nearby bridge	Wing-shape Dyke and amenity tower Miniature landmark	



## **Chapter 2 - CASE STUDY PROJECTS**

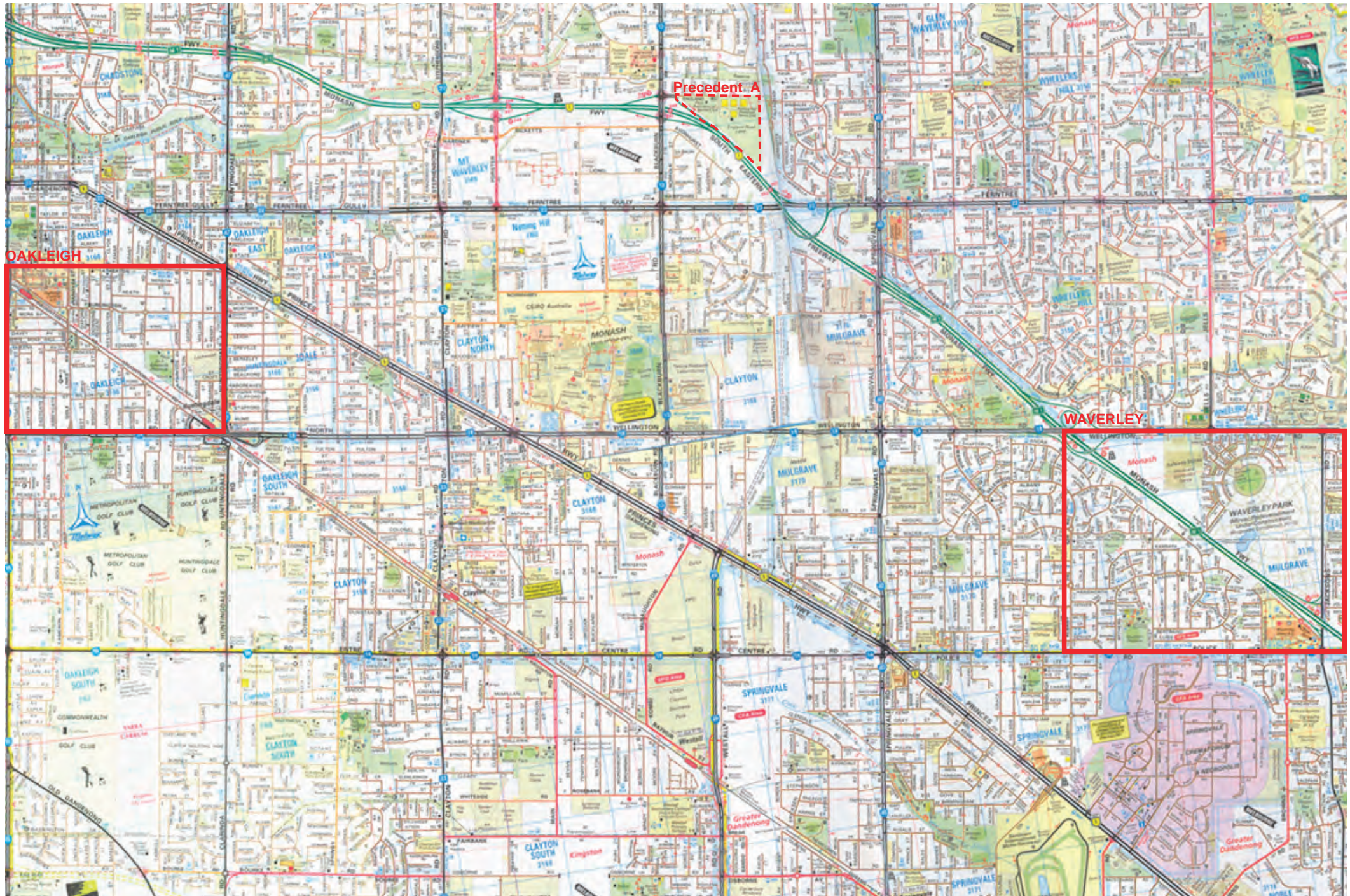
### **2.1            Infrastructural Diagonals Analysis**

2.1.1           PROJECT 1: *'Reinforcement'* - Oakleigh (to Huntingdale)

2.1.2           PROJECT 2: *'Stitching'* - Waverley



Figure 35. Location map showing Precedent A, as well as case study areas for Oakleigh and Waverley. Precedent A lies next to the Monash Freeway spanning 200m from the beginning of the infrastructural diagonal. Waverley Park by Mlrvac lies further south along the freeway and is much larger. Oakleigh is a more historical (industrial) suburb established in the 1960s concurrently with the railway development and lies south east, between Princes Highway and the Dandenong railway line. (Melway, ed.30, p.70-71)





### ‘Reinforcement’

**To emphasise, make more obvious, increase its presence as a whole.**

The strategy at Oakleigh is called ‘reinforcement’ to describe the linear institutionalisation of the suburban fabric along the railway line.

With the Melbourne 2030 proposal for Oakleigh station to become a major transport node, my strategy supports the establishment of the station surrounds as a precinct and the gentrification of the railway infrastructure with the neighbourhood fabric.

My design intention is to prolong the catchment area of the nodal centre (500m) from Oakleigh to the next station at Huntingdale. The proposed interventions spread from one end to the other in between the stations (1.5km) emphasising the diagonal nature of the radial infrastructure.

The use of SLOAP investigates the potential of correlating infrastructural development with the diversification of building types and the subsequent densification of built form attached to infrastructure. I explore the opportunities in the edge condition caused by the suburban fabric meeting with infrastructure, namely in dealing with:

- frayed edges in street patterns
- implied contiguity of zones
- use of open space adjacent to the railway line
- visual connection of axis across infrastructure
- existing use of railway easements  
(refer to Fig. 39)

Historically, the mostly Greek and Italian community has developed its own ways of having a dialogue in living side by side with infrastructural development. Using the by-products of infrastructure to suit their lifestyles, car parks are used as weekend markets, railway easements as walk paths from the shopping centre at the station, and reserves as community gathering places. These left-over spaces provide places of community significance and encourage social activities.

My proposed buildings are a combinations of residential types and extensions to infrastructure consisting of medium-scale development to introduce a secondary grain to the suburban fabric. This is in the hope that the secondary grain will in turn formalise some of the existing uses of open space and is an attempt to preserve the civic realm by framing them as places of local and cultural interest thus permitting community activities to continue in a re-defined space.  
(Fig.40)

(top right)

Figure 36. Aerial photograph of Oakleigh showing industrial zone to the north and residential dwellings to the south of railway. Areas of interest (affected by the railway line) highlighted in dashed (red) line

(bottom right)

Figure 37. Zonal map of Oakleigh showing the (former) industrial area along the railway line (in orange).

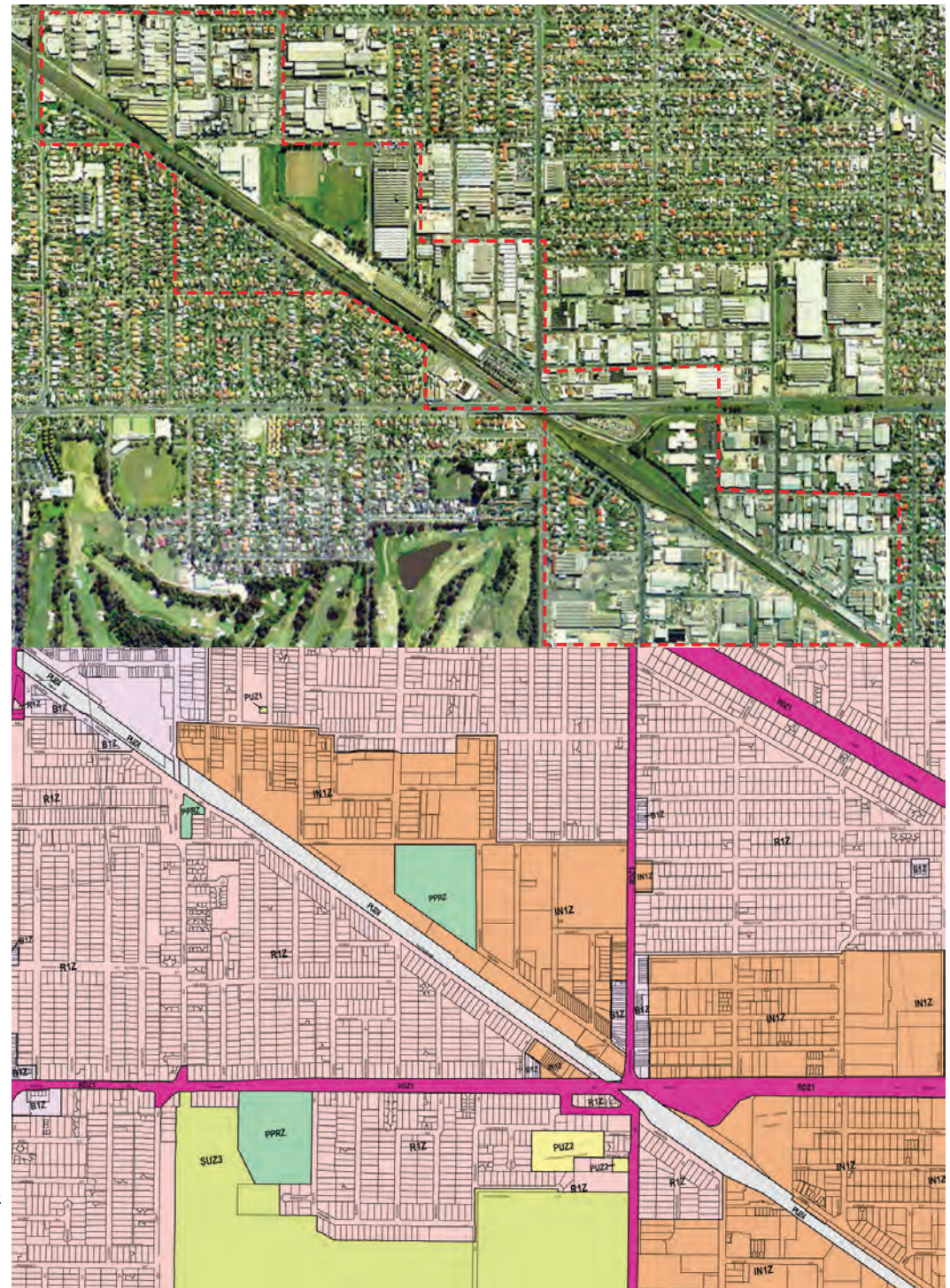
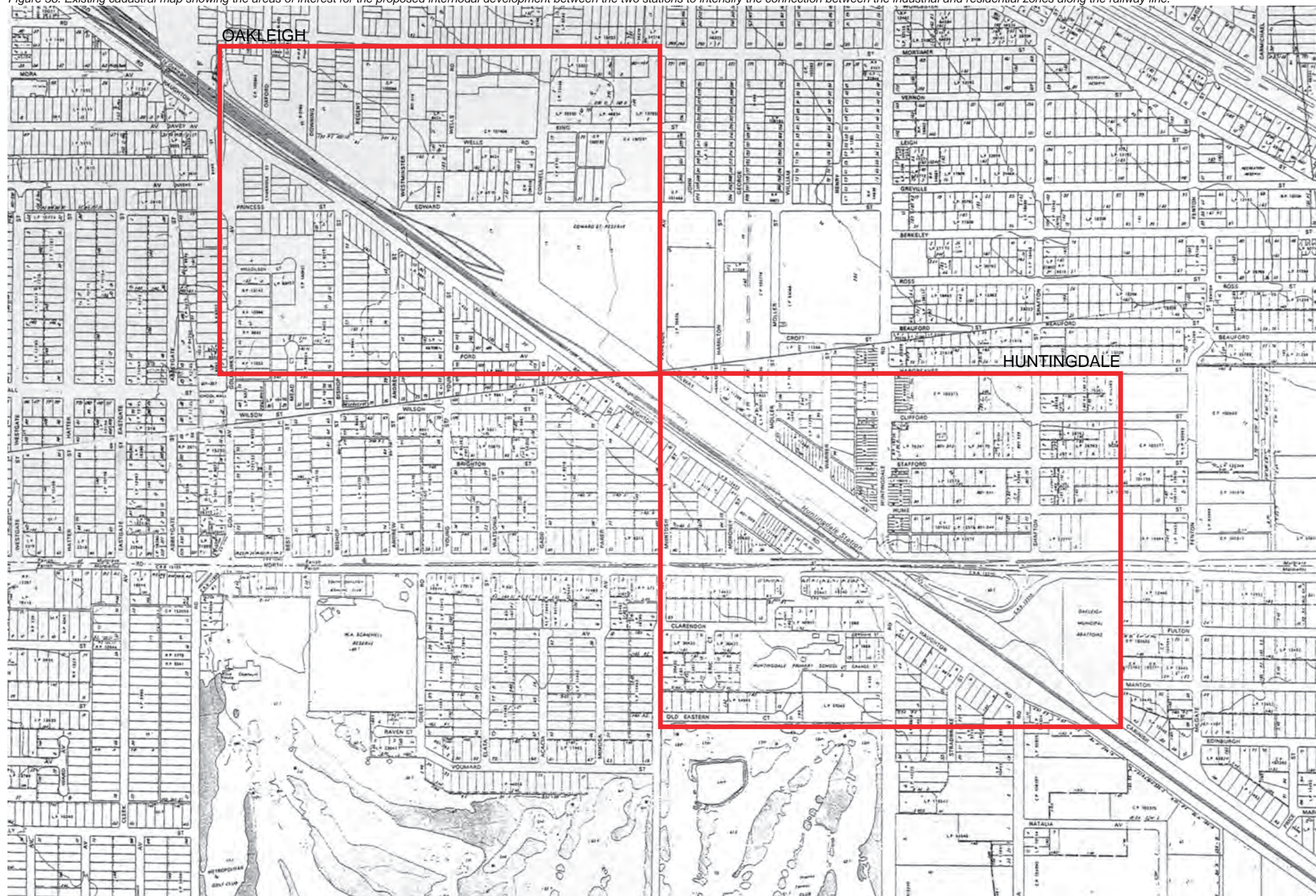
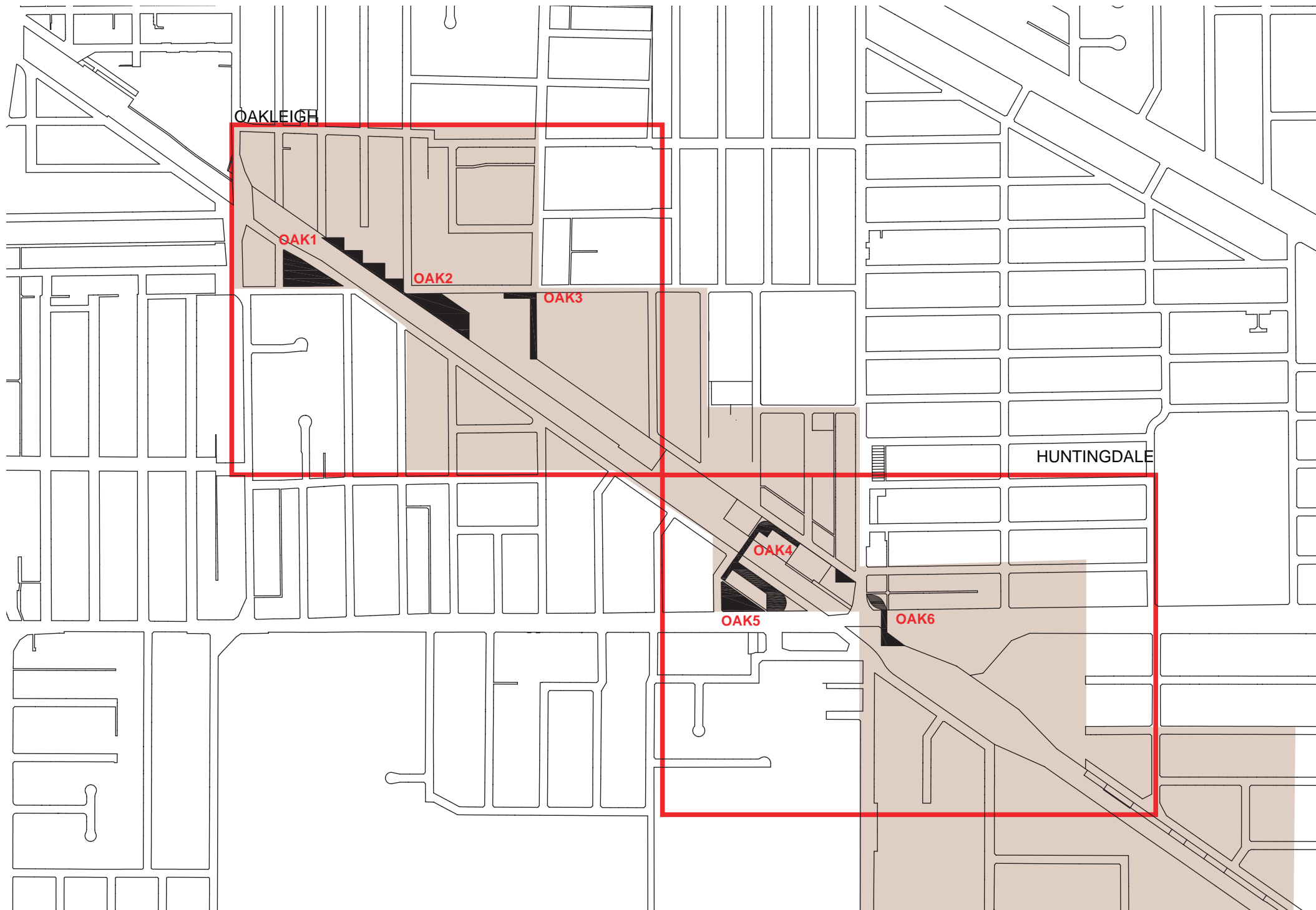




Figure 38. Existing cadastral map showing the areas of interest for the proposed intermodal development between the two stations to intensify the connection between the industrial and residential zones along the railway line.

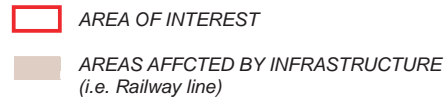






left:

Figure 39. Current cadastral map of Oakleigh showing the locations of the six proposed interventions using the overall strategy of 'reinforcements with areas affected by the railway line (dashed in red).



#### OAK 1:

Type of Development:  
Existing Use:  
Site Area:  
Floor area:  
Occupational technique:  
Building Shape:

#### Apartment with row garages

Residential  
Green reserve  
1,600 sq.m  
6,400 sq.m  
Small-scale repetition  
C-shape

#### OAK 2:

Type of Development:  
Existing Use:  
Site Area:  
Floor area:  
Occupational technique:  
Building Shape:

#### Elevated Warehouse type residence

Industrial redevelopment  
Railway easement  
10,000 sq.m  
15,000 sq.m  
Elevated Promenade  
Parallel-shape

#### OAK 3:

Type of Development:  
Existing Use:  
Site Area:  
Floor area:  
Occupational technique:  
Building Shape:

#### High-rise apartment

High-rise tower with public podium  
Green reserve  
6,400 sq.m  
45,000 sq.m  
Edge  
L-shape

#### OAK 4:

Type of Development:  
Existing Use:  
Site Area:  
Floor area:  
Use:  
Building Shape:

#### Bus Apron and a Overpass

Infrastructural extension  
Derelict industrial shed  
1,800 sq.m  
3,600 sq.m  
Constructed ground  
Bridge

#### OAK 5:

Type of Development:  
Existing Use:  
Site Area:  
Floor area:  
Occupational technique:  
Building Shape:

#### Terrace Row Housing

Mixed use  
Light industrial warehouses  
2,200 sq.m  
8,800 sq.m  
Residential above, commercial below  
Wedge

#### OAK 6:

Type of Development:  
Existing Use:  
Site Area:  
Floor area:  
Occupational technique:  
Shape:

#### Junction development

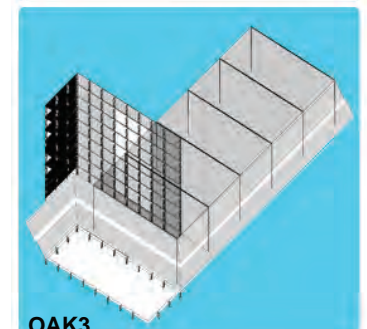
Civic  
Local commerce, industry station front  
7,200 sq.m  
7,200 sq.m  
Small-scale amenities: Ticketing, carpark, petrol station  
Linear / series



OAK1



OAK2



OAK3

(Figure 40: Illustrations refer only to proposed infills OAK1-OAK3 from top)



Figure 41. Neighbourhood Street pattern showing areas influence by infrastructural diagonal (Dandenong railway line).



#### a). LOCAL STREET PATTERN

The existing neighbourhood character of the case study area at Oakleigh follows the pre-, inter- and post-war development of the residential fabric which derived from the grid pattern laid on top of the flat topography. (Fig. 41)

The orthogonality of the grid pattern helps to accommodate the influence of the diagonal by following the through-roads which in turn give definition to the extent of the area affected by the diagonal infrastructure on both sides of the railway line.

The case study specifically deals with the residential fabric along the railway, highlighted in yellow(A), in relationship to the former industrial fabric, in white (Fig. 42).

The design strategy is to form contiguity of the suburban fabric in exploiting the disjunctions. This sets up the framework for my strategy of 'reinforcement' in identifying the pressure points within the suburban fabric where potential interfaces can occur.

The identified sites indicate the fluctuation caused by the pressure points between the existing residential fabric and the industrial zone.

- Local street pattern
- Area affected by infrastructural diagonal
- Railway infrastructure (Dandenong line)

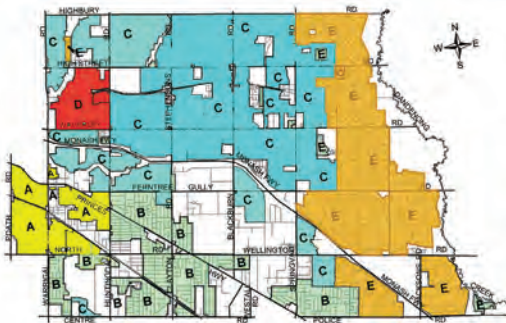
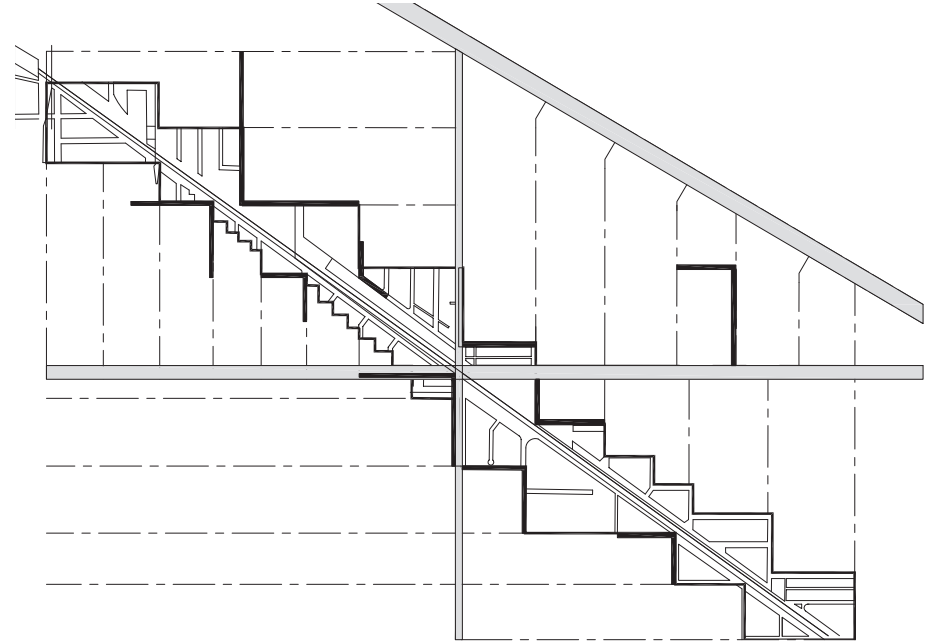


Figure 42 Neighbourhood character study of residential settlements in Oakleigh.

- [www.monash.vic.gov.au / maps / history / index.htm](http://www.monash.vic.gov.au/maps/history/index.htm)

Figure 43. Major infrastructural junction (in grey) and minor junctions implied by frayed edges and perfect corners.



#### b). SECONDARY GRAIN

The hierarchy between the suburban fabric and the area affected by the infrastructural diagonal is found in the local street junctions causing:

1. frayed edges
2. perfect corners

The orientation of the blocks are informed by the local axes implied by the streets in meeting with the railway line. Opportunities are found in the termination of the local street with "perfect" corners creating a visual connection across the railway line. On the other hand, the frayed edges provide potential connections between pedestrian or light-vehicular traffic routes in the neighbourhood fabric along the railway. (Fig. 43)

The selected SLOAP are located at the collisions causing irregularities to manifested in the grain of the suburban fabric and to give intermittent punctuations to the existing suburban fabric. (Fig. 44)

The proposed uses of SLOAP are to incorporate some of the existing pedestrian networks along the railway line into the new buildings and also to improve the groundscape. At the same time, the aim is to frame the visual openings across the railway line.

- Frayed edges
- Areas affected by infrastructural diagonal
- Secondary (local) Axis
- Major roads and Highway
- L "Perfect" street corners

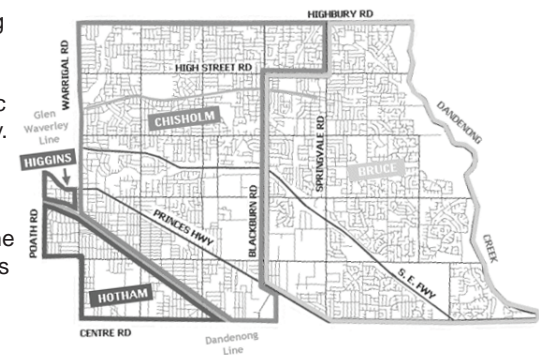
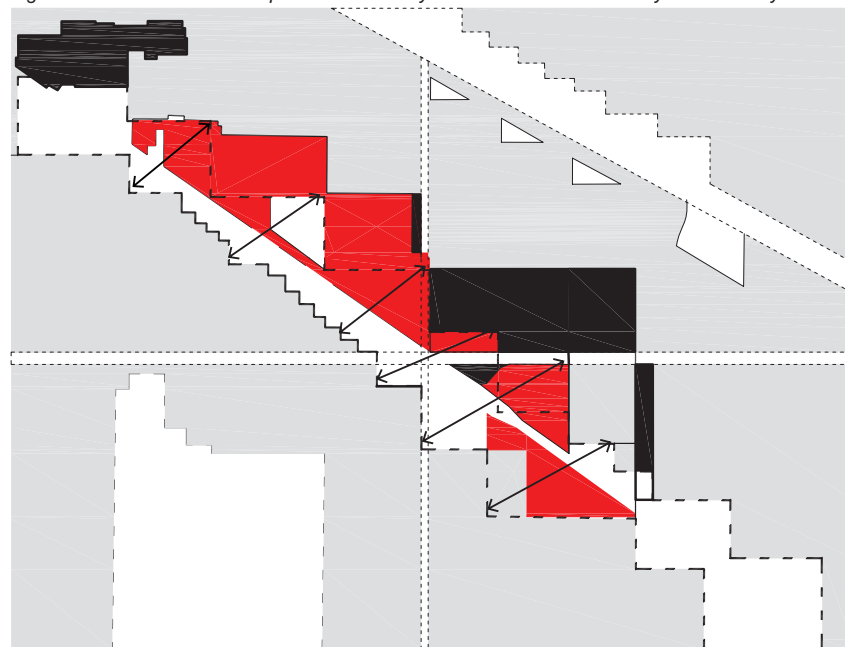


Figure 44. Infrastructural diagonals form boundaries to the various wards within Monash Council area.

- [www.monash.vic.gov.au / maps / wards / index.htm](http://www.monash.vic.gov.au/maps/wards/index.htm)

Figure 45. Zonal distribution separation caused by the infrastructural boundary of the railway line.



c). ZONES

At the same time that the local street patterns suggest possible interfaces for dealing with the immediate adjacent fabric along the railway line, my overall intention is for the “seamless” integration of the existing built fabric with my proposed buildings. This involves a shift in the scale and type of buildings to address zones forming boundaries to the infrastructural diagonal.

To the east of the diagonal is the former industrial fabric which developed with the railway infrastructure and to the west is the residential infill following the ubiquitous land surveyors’ grid.(Fig. 45) The use of SLOAP is to ensure that the permeability inherent with the railway infrastructure at critical points is maintained and to further add a secondary grain to the suburban fabric on both sides of the railway line to form a contiguous fabric.

The purpose of the secondary grain is to:

1. rejuvenate the derelict industrial areas
2. establish the linear urbanisation along the railway

The secondary grain consists of the intermediate scale of my proposed buildings in contrast to the existing primary grain. (Fig. 46)

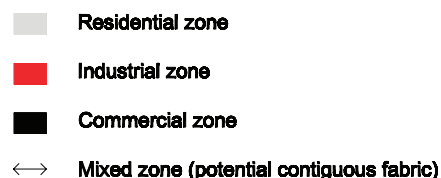


Figure 46. Distribution of institutional and large-scale buildings. Their locations reinforce the gridion occupying major junctions.

- [www.monash.vic.gov.au / maps / institutions / index.htm](http://www.monash.vic.gov.au/maps/institutions/index.htm)

Figure 47. Distribution of open space along the infrastructural diagonal and municipal designated open space.



d). OPEN SPACE

Currently large open spaces are allocated as railway easements and extensions or as designated open spaces, (such as Jack Edwards Reserve) which is framed by the existing walls of the industrial shed along Parkside Avenue. (Fig. 47)

The location of the open spaces help define local territories by reflecting voids back onto the local suburban fabric to indicate public spaces. The most obvious symptoms of such phenomena are the triangle plots that are left by the infrastructural cut on the orthogonal blocks of the suburban fabric.(Fig. 48) Some are more subtle left-overs from the previous development of the industrial zone which include vague spaces or neglected sites.

My aim is to redeploy these isolated SLOAP back into the local suburban fabric by making use of them as landmark sites for marking places of local significance and in framing existing open space to reinforce the public / civic realm in their existing context.

In some of my larger-scale proposals, the adjacency to existing open space is inverted to provide anchorage with the reinforcement of civic functions such as a series of civic amenities to supplement the operation of the station precinct.

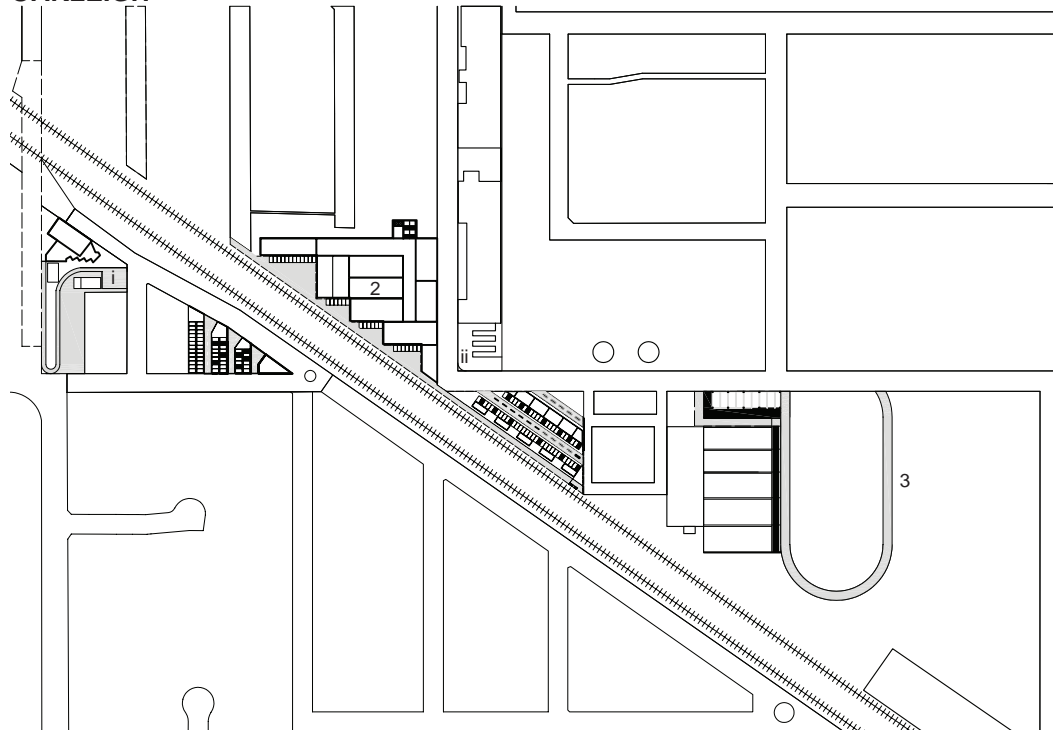


Figure 48. Distribution of open space within Monash Council boundary showing the traces of infrastructural diagonals.

- [www.monash.vic.gov.au / maps / shopping / index.htm](http://www.monash.vic.gov.au/maps/shopping/index.htm)



## OAKLEIGH



### STREET PLAN 0m

Figure 49. Street and light traffic pattern establishing local fabric and proposed infill. The grey areas indicate the proposed pedestrian connections to existing network of streets.

0 50 100 200m



Figure 51. **EXISTING VIEW** of the back face of the industrial block on the other side of the station ground. The laneway leads to the pedestrian underpass at the foot of North Road. The side street, Moroney Street changes in direction to meet Haughton Street at this point and also forms part of the configuration for the infrastructural knot and connects the local street to the junction. The block is a mixture of warehouses and residences. (iii)



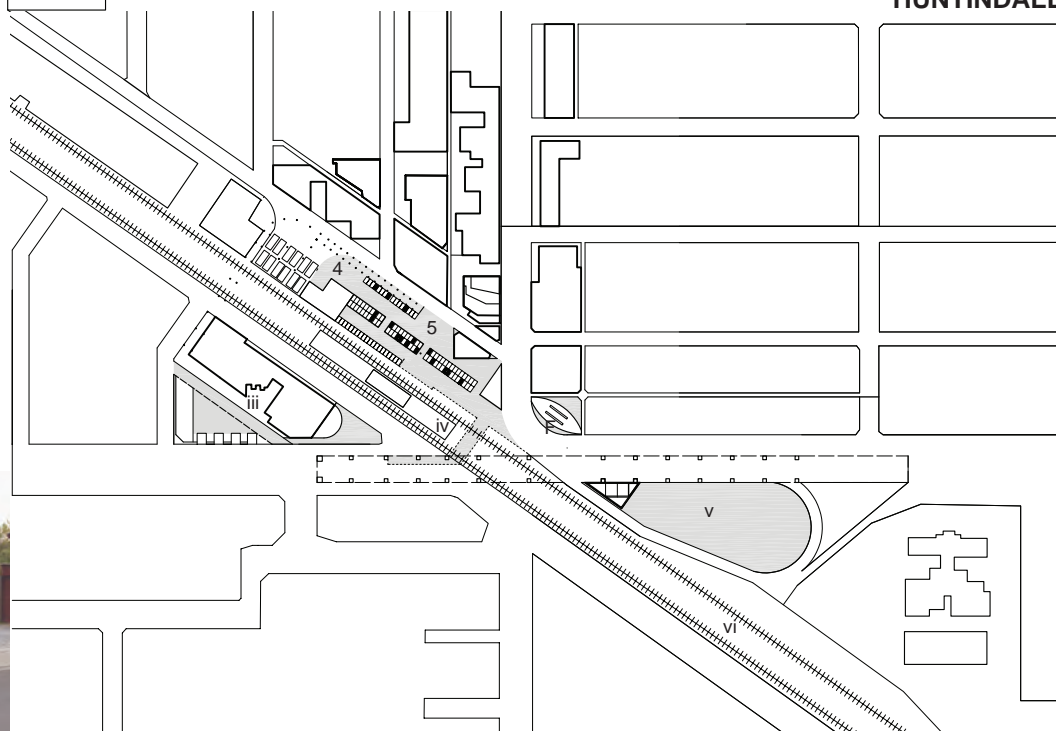
Figure 50. **EXISTING VIEW** of the 'Perfect' Corner junction framed by former industrial sheds. This is where a corner of a block hits the diagonal of the railway line. The street opens up in meeting the railway line allowing access to the easement which is currently used as a walkway from the shopping centre. On the other side in the residential district, roads run along the railway line which stops direct interaction. The art-deco building signifying the corner expresses the built fabric from the 60s. The corner is where Edward Street becomes Westminster Street leading to the main arterial road which takes you to Oakleigh station. (ii)

#### PROPOSED:

1. - Drive-through roads
2. - Warehouse units
3. - Running track / sports ground
4. - Bus depot
5. - Ticketing / waiting hall (proposed)
6. - Pedestrian crossing (proposed)

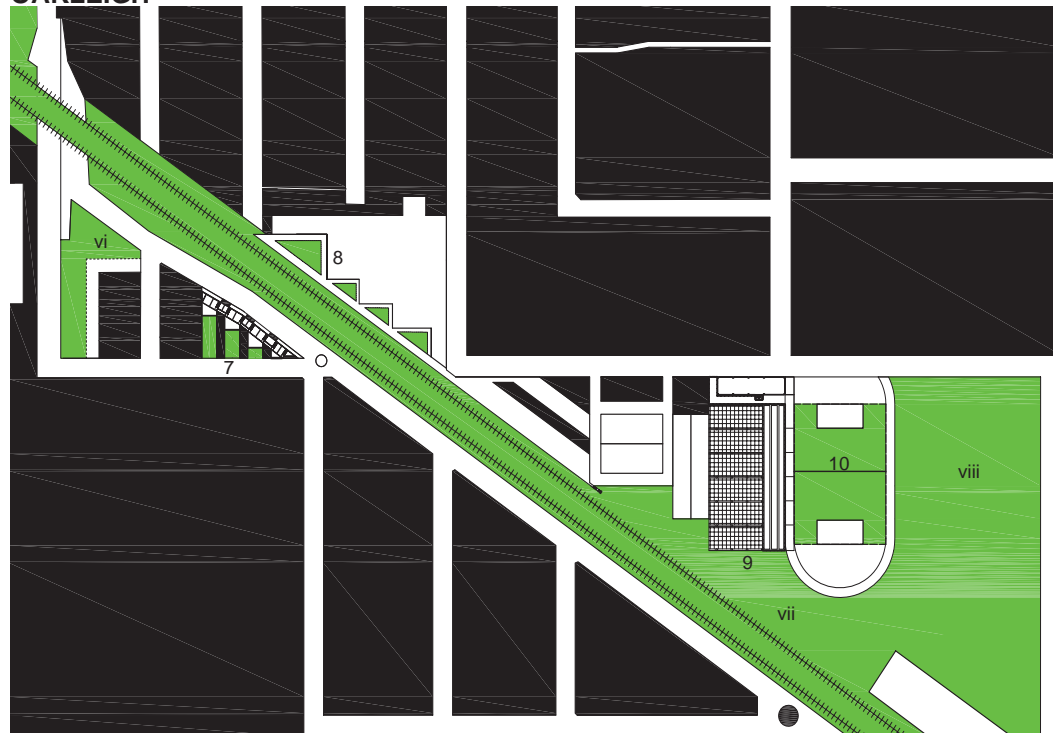
#### EXISTING:

- i. - Informal carpark
- ii. - 'Perfect' corner / corner 'art-deco' shed
- iii. - Back lane (extg.) / right of way (proposed)
- iv. - Underpass
- v. - Station car park
- vi. - Railway track



## HUNTINDALE

## OAKLEIGH



**FIGURE / GROUND PLAN + 3m**

Figure 52. The relationship between open spaces and built fabric along the railway line showing the railway easements and other green reserves attached to the railway.

0 50 100 200m



Figure 54. **EXISTING VIEW** of the designated open space (i.e. Jack Edwards Reserve. Also refer to comments on Fig. 46) forms a part of the railway easement. The open space is framed by the continuous wall of a large-scale industrial building along Parkside Avenue. The reserve occupies a large triangle corner zone and marks the junction between industrial and residential fabric. This forms a boundary to the fabric affected by infrastructural diagonal with the open space acting as a buffer from both the railway line and industrial development. (viii)



Figure 53. **EXISTING VIEW** of the petanque (a form of lawn bowling) next to the vehicular overpass (Golf Link Avenue). The green space makes use of the slope of the buttress wall of the overpass to secure the open space and also acts as a buffer for pedestrians making use of the bridge on the side, navigating them into the adjacent residential areas. The infrastructural junction provides an unusual haven with a generous scale to the green space for the community lawn bowl game. (vi).

### PROPOSED:

- 7. - Roof terraces
- 8. - Community gardens
- 9. - Lawn bowl club
- 10. - Sports ground
- 11. - Landscape strip
- 12. - Civic plaza

### EXISTING:

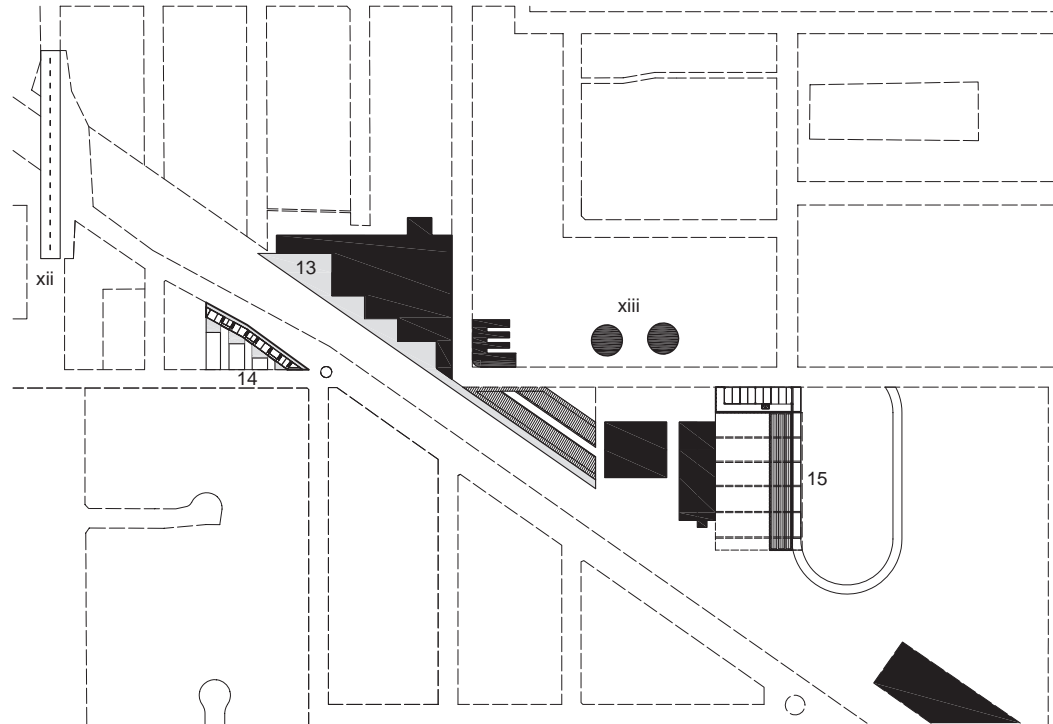
- vi - Public lawn bowl
- vii - Railway easement
- viii - Jack Edward Reserve
- viv. - Large-scale industrial building
- x. - Industrial shed
- xi - Station carpark



## HUNTINGDALE



## OAKLEIGH



### BUILT FABRIC PLAN + 6m

Figure 55. Existing and proposed infill buildings. The proposed (in grey) and existing buildings (in black).

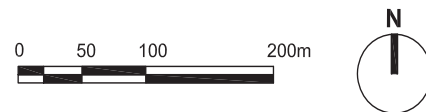


Figure 57. **EXISTING VIEW** of Huntingdale Station. The station is a typical suburban station with open-air platforms and car-park along side the railway line. After the station is North Road overpass above and Huntingdale Road below, forming an infrastructural knot. The side road, Haughton Road along the railway continues from the residential area which fades to become a built-up area towards the station. The industrial overlay covers the railway line and forms a precinct across to the suburban fabric. (xiv-xv)



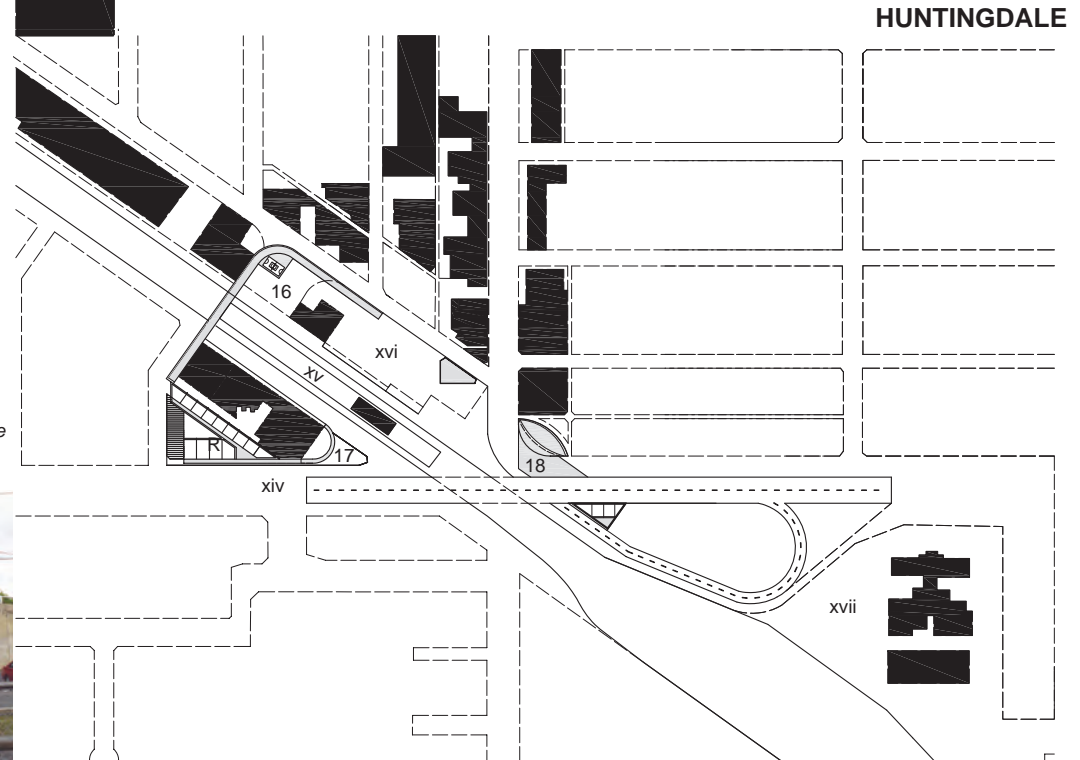
Figure 56. **EXISTING VIEW** from under the overpass (Golf Link Avenue so-called because it leads to the Metropolitan Golf Club further south in Oakleigh) at the beginning is the industrial zone on the other side of the railway line. The overpass is the second crossing after the major crossing point of Warrigal Highway further up at Oakleigh station. Next to the slope of the retaining wall of the bridge is the local lawn bowl club located on the residential side of the railway line. (xii)

#### PROPOSED:

- 13. - Elevated promenade
- 14. - Row garages
- 15. - Grand stand
- 16. - Bus overpass
- 17. - Civic plaza
- 18. - Roof cover

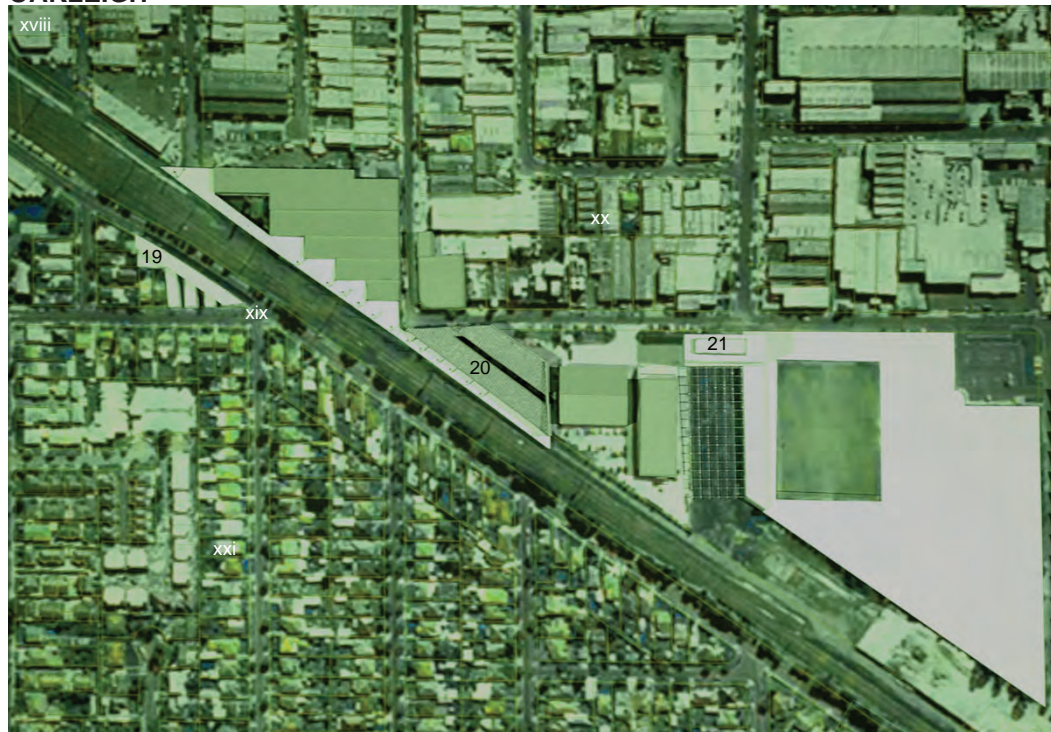
#### EXISTING:

- xii. - Vehicular overpass / Golf Link Avenue
- xiii. - Industrial silos
- xiv. - Overhead bridge / North Road
- xv. - Huntingdale station
- xvi. - Station front car park
- xvii. - Commercial complex





## OAKLEIGH



### PRECINCT PLAN + 9m

Figure 58. Aerial montage of Oakleigh and Huntingdale with the proposed infill buildings in the existing context.

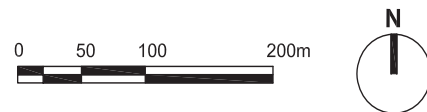


Figure 60. **EXISTING VIEW** of the North Road overpass from the platform. At the foot of the bridge is the pedestrian access to the underpass for commuters. The SLOAP is at the junction of the bypass and Haughton Road on the far right. The overpass also leads to large informal carparks. (xxiii)



Figure 59. **EXISTING VIEW** of the termination of the residential fabric at the roundabout. Haughton Street runs along the railway line and meets the junction of Princess and Bishop Streets at the roundabout. The block terminates as a SLOAP which is currently used as an informal reserve. The triangular plot is left over and has become a pedestrian short cut. It also forms a buffer for the single-family houses facing Princess Street. (xix)

#### PROPOSED:

- 19. - Four-storey apartments
- 20. - Warehouse type residences
- 21. - High-rise tower
- 22. - Basketball court
- 23. - Bus terminal / industrial shed
- 24. - Petrol station
- 25. - Car park amenity
- 26. - Terrace extension

#### EXISTING:

- xviii. - Oakleigh shopping centre
- xix. - Princess Street / Haughton Road roundabout
- xx. - Industrial fabric
- xxi. - Single-storey residential fabric
- xxii. - Light-industrial warehouse
- xxiii. - Moroney Street / Haughton Road junction
- xxiv. - Local commercial strip

## HUNTINGDALE





“Abstract principles of architectural composition take a subordinate position within the organizing idea. The ‘universal-to-specific order’ is inverted to become ‘specific-to-universal’.”<sup>37</sup>

- Steven Holl, *Anchoring*

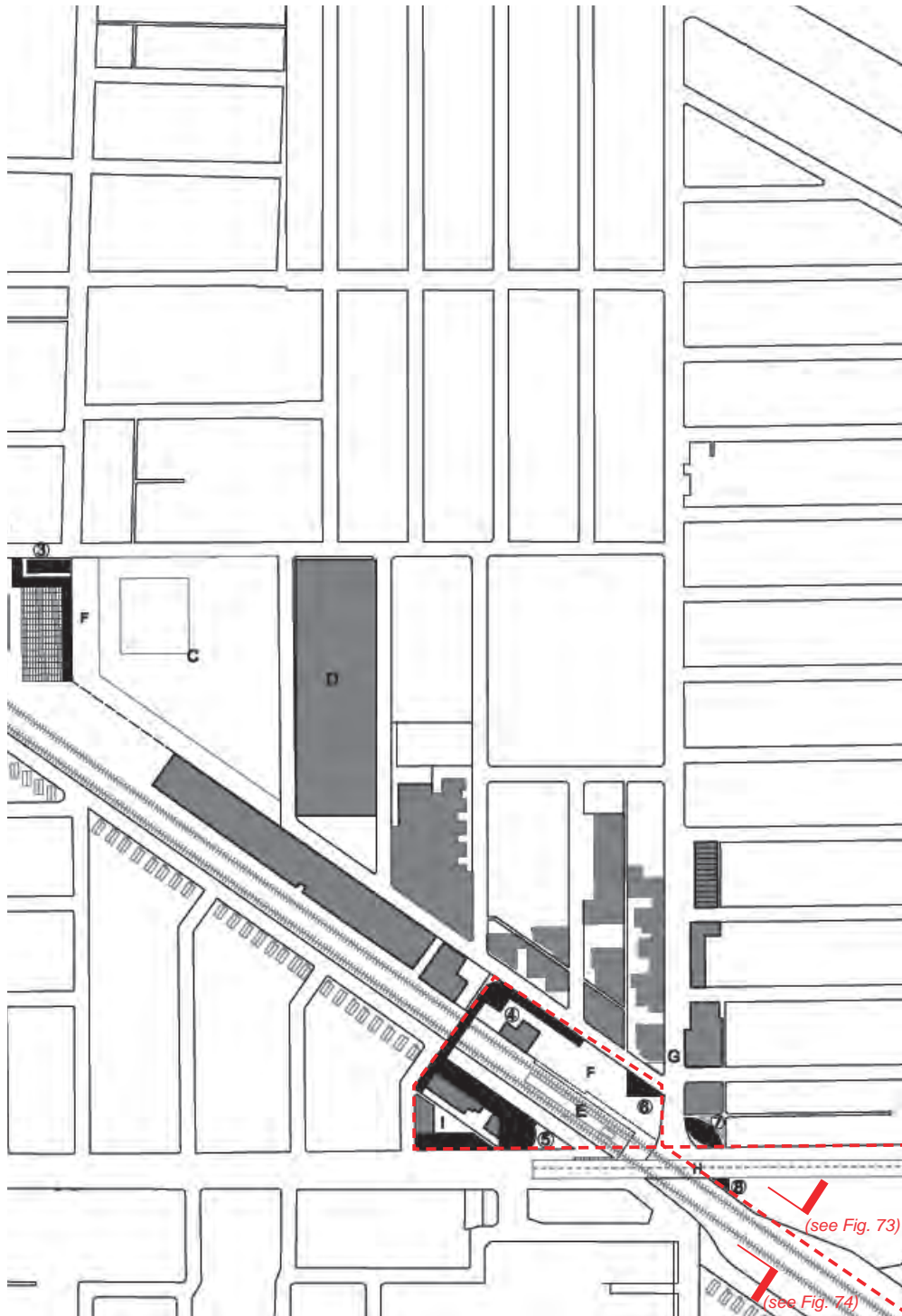


Figure 61 & 62.  
Aerial photo of the overall  
model of Oakleigh with the  
proposed infill buildings.  
Left: Oakleigh  
Right: Huntingdale



Figure 63. Overall plan of  
Oakleigh to Huntingdale showing  
the existing context (in red)  
and the proposed infill build-  
ings (in black).





#### EXISTING CONTEXT:

- A. Oakleigh Shopping Centre
- B. Warehouse
- C. Designated open space / Jack Edward Reserve
- D. Industrial shed
- E. Huntingdale Station
- F. Station carpark
- G. Local commercial strip
- H. Vehicular overpass / North Road bridge
- I. Terrace shop fronts
- J. Open-air carpark

#### PROPOSED BUILDINGS:

- 1. Four-storey apartments (OAK 1)
- 2. Warehouse Units (OAK 2)
- 3. High-rise tower (OAK 3)
- 4. Bus overpass (OAK 4)
- 5. Terrace extension (OAK 5)
- 6. Ticketing and waiting hall (OAK 6)
- 7. Petrol station / store (OAK 6)
- 8. Carpark amenities (OAK 6)

#### EQUIVALENCE

"When you start out from a formal order it is important to avoid having to force all the elements into that order, because then you will inevitably make them subservient to the whole, that is the value that is given to the parts will be dictated by the order governing the whole." <sup>38</sup>

- Herman Hertzberger, *Lessons for students in architecture*.





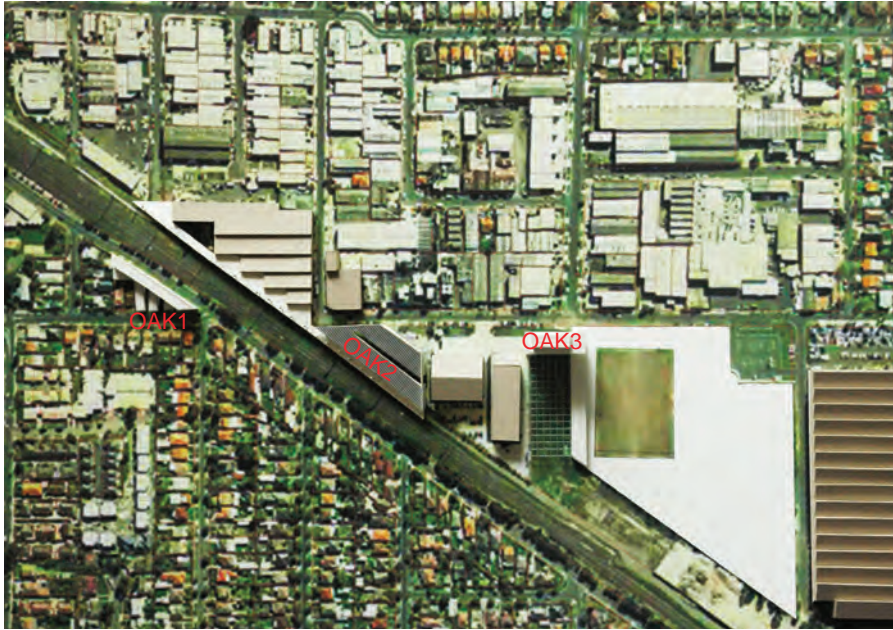


Figure 64. Aerial montage of the Oakleigh model with the proposed infill buildings OAK1–OAK3.

Figure 65. **PROPOSED VIEW OF THE FOUR-STOREY APARTMENT BUILDING WITH GARAGE ROWS (OAK1)** facing the existing single-family dwellings at the roundabout of Princess Street and Haughton Road. At the termination of the wedge is the proposed tower with a clock acting as a landmark to the junction.



## 1. OAKLEIGH

The scenario at Oakleigh follows the typical model used for the gentrification of residential neighbourhoods with the densification of adjacent station surrounds as a shopping precinct.

The proposition for internodal development is to stimulate the mixed use (civic and residential) growth of the activity centre along the railway line with the increased emphasis on public transport. My strategy aims to reinforce the catchment area of the activity centre (i.e. 450–500m) by prolonging its impact along the railway line from Oakleigh to the next station at Huntingdale.

The railway infrastructure offers a variety of infill opportunities to satisfy the demand for the diversification of residential types. I intend to achieve this through the utilisation of spaces left-over which, in this case, are railway easements and railyards as well as derelict industrial zones which originally developed with the railway line.

Currently the neighbourhood fabric lacks positive engage-

ment with the railway line, and I have utilised left-over sites to reinforce and extend the network of walkpaths and shortcuts within the local residential fabric actually increasing accessibility.

The proposed residential types reflect the techniques of infill using SLOAP to increase:

1. porosity of the block
2. parallel development along the railway line
3. landmarks to frame local vistas

The proposed buildings, OAK1-OAK3 are of medium-density and introduce a secondary grain between the industrial zone to the north of the railway line and residential precinct to the south which mostly consist of single-dwellings.

The proposed buildings are configured compositionally to provide punctuations within the monotony of the current suburban fabric and to “seamlessly” integrate the old neighbourhood fabric with the new.



The scale shift required for the densification is addressed through the repetition of familiar elements and materiality of the typical suburban context with:

- OAK1 - Four-storey apartments with row garages** having a series of garages attached to the main residential block with drive-through roads
- OAK2 - Warehouse type residences** attached to an elevated promenade with the freed ground level connecting to refurbished industrial warehouse units
- OAK3 - High-rise apartments** with a public podium on ground level becoming a grandstand to the adjacent open space.

Most of the buildings allow for free access on the ground (such as driveways or thoroughfares) keeping them public by incorporating secondary functions into my architectural composition. In other cases, the lack of vehicular traffic at dead-end streets is taken advantage of, to allow new pedestrian circulation connecting the neighbourhood fabric. (OAK2)

For example, the proposed elevated promenade spans from Downing and Regent Street to connect to the “perfect” corner at Westminster / Edward Street. (Fig. 66)

The proposed constructed ground reinforces physically the railway boundary with residences (renovation of an existing warehouse and the new warehouse-type residential units) attached to the promenade. Where there are opportunities to relate to adjacent open spaces (e.g. Jack Edwards Reserve), my buildings act as landmarks to define the civic nature of these public spaces and to signify them as destinations.

The combination of the new residential types add a new skyline to the existing neighbourhood and a vertical dimension to offer vantage points. These experiences are obtained through the occupation of SLOAP by my proposed residential buildings to re-enage the awareness of both train passengers and local residents and to raise curiosity and interest in ways in which unique relationships are created between different forms and uses of infrastructural systems, specifically in the local context.

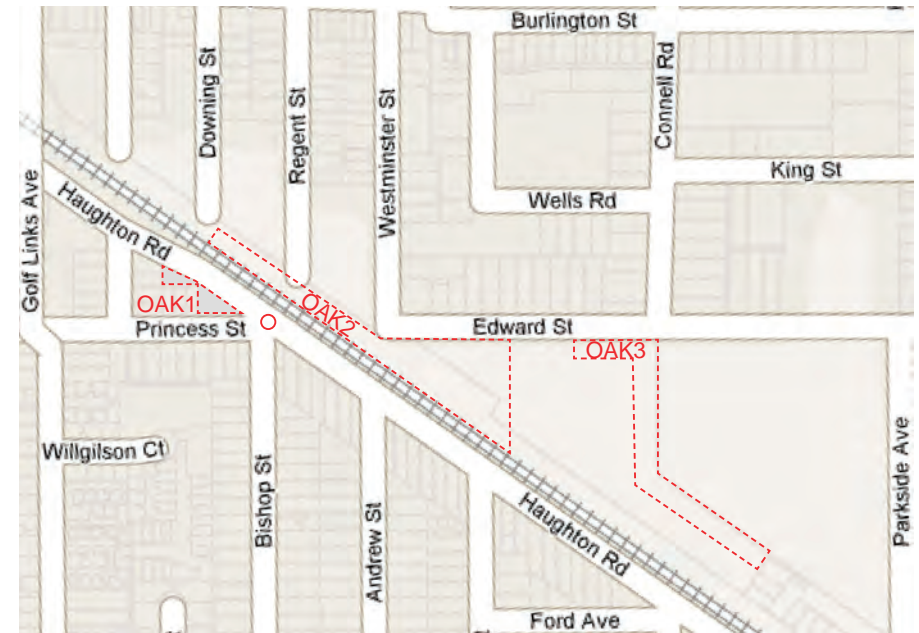


Figure 66. Existing street map showing dead ends and “perfect” corner sites selected as my SLOAP.

Figure 67. **PROPOSED VIEW OF THE ‘PERFECT’ CORNER JUNCTION** (OAK2 & 3): at Westminster / Edward Street. The proposed elevated promenade (above) connecting to the new warehouse residences reflects the existing context of the mostly industrial fabric opposite as well as reinforce the axial continuation of the street across the railway. The elevated warehouse residence provides shelter for pedestrians from the shopping centre beyond and encourages recreational and community use.







Figure 68. Aerial montage of the model with the proposed infill buildings OAK4~OAK6.

## 2. HUNTINGDALE

Huntingdale Station is located at a major infrastructural knot (Fig. 68) comprising a large vehicular overpass crossing the train line (Dandenong). My aim is to reinforce the station territory into a civic precinct following a figure-eight configuration.

Currently, the station lacks the consolidation of amenities that anchors public use and mediation of infrastructural elements with the neighbourhood fabric. SLOAP are found at:

**OAK4** - derelict industrial sites attached to infrastructure formerly served by the railway. These provide informal public spaces (i.e. terrain vague).<sup>39</sup>

**OAK5** - contiguity in the block formation of the built fabric implied onto existing large open spaces (e.g. car park ground in front of the station)

**OAK6** - sudden changes in scale of infrastructure meeting with the existing neighbourhood fabric. (e.g. side street of North Road and Haughton Street)

The operational agenda for the proposed infill is to:

1. separate vehicular from pedestrian circulation to create a more pedestrian-oriented neighbourhood
2. clarify the boundaries of the station precinct to increase efficiency and the containment of infrastructural development
3. systemise the inter-connection of transport networks (i.e. bus routes and rail transport).

The proposed infill projects are intended to better navigate traffic conditions without sacrificing the existing neighbourhood character and to encourage public participation in maintaining the welfare of the area. This also provides increased safety for the users at the station and the proposed bus stop.

The case studies are an extension of existing infrastructure to further reinforce the civic nature of the infrastructural junction.

Figure 69. **PROPOSED VIEW OF THE STATION GROUND** (OAK5 AND 6): anchored by civic amenities including petrol station (left), bus terminal (middle) and terrace extension (behind) mirroring the existing surrounding industrial fabric (far right).





My strategy begins with the relocation of the proposed bus routes along Moroney Street to the other side of the railway line. (Fig. 70)

The infrastructural extensions reflect the idiosyncrasies of negotiating the community desire for allocating secondary functions to infrastructure, such as a basketball incorporated as part of the bus apron (OAK4), and recognise the opportunistic potentials of building on SLOAP.

The proposed bus overpass establishes the figure-eight circulation and sets up the framework for other civic amenities to supplement the station precinct. These include a bus terminal / waiting hall continuing the station ground across the commercial strip to the proposed petrol station and further to the existing public carpark. (Fig. 71)

The proposed infill projects are intended to physically layer an intermediate scale of built form with the build-up of local commerce to rejuvenate some of the neighbour-

hood fabric that has been neglected by previous developments.

The main strategy used in the proposed development at Huntingdale is a thickening of the infrastructural diagonal to increase awareness of its "civic" identity around the station precinct. There is also an emphasis on the openness of railway infrastructure to express horizontality.

For example, the block of shopfronts next to the North Road overpass is targeted for the terrace extension to give more presence in built form for the station precinct opposite and to signify the existing pedestrian egress. (Fig. 69)

My architecture promotes industrial aesthetics in the language of new built form, using transparent materials (chain link fence), extended roof canopies and fragments of iconic forms for billboards. This also helps to enhance a sense of arrival for the train passengers.

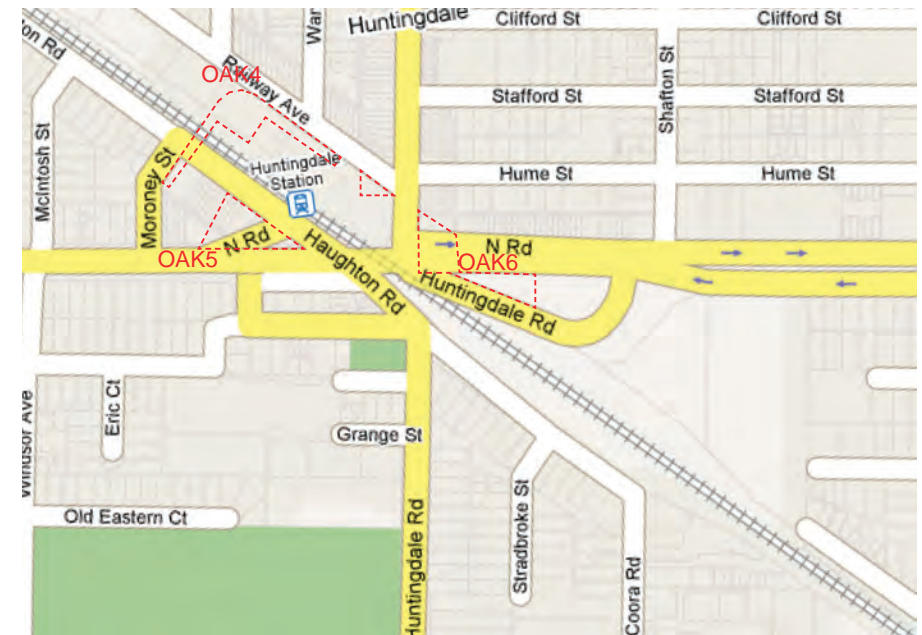


Figure 70. Existing street map showing the figure-8 configuration to the major infrastructural junction.

Figure 71. **PROPOSED VIEW OF THE BUS OVERPASS (OAK4):** The attached apron could be used as a basketball court; the ramp provides a canvas for billboards and is provided with more than the usual number of street lights.

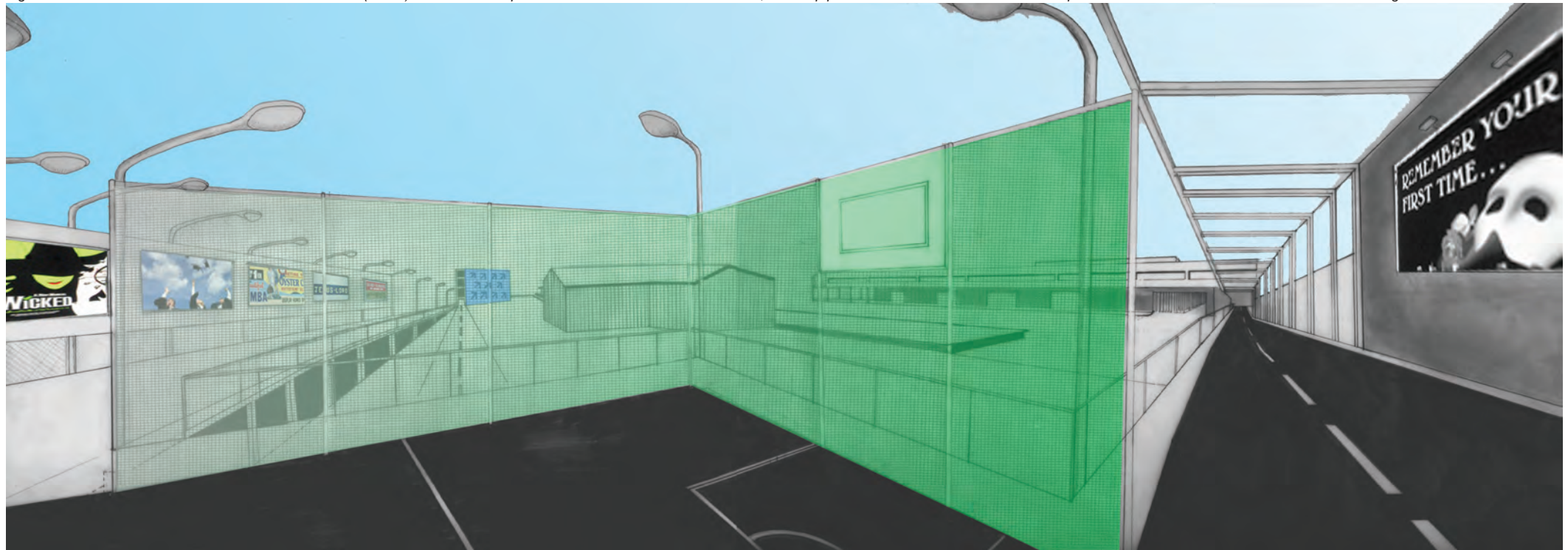
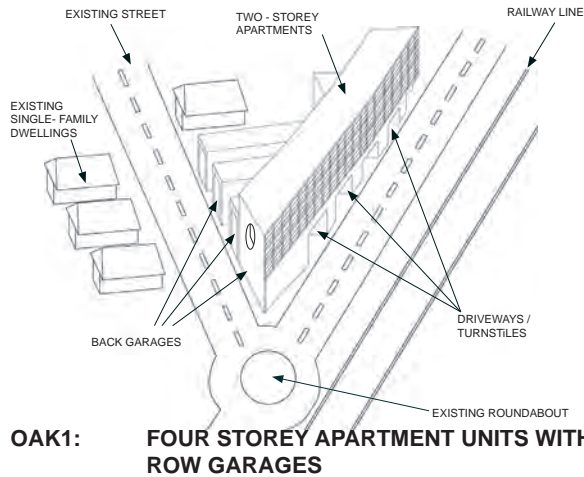




Figure 72. Axonometric drawings of the proposed buildings at Oakleigh



The building composition has two contrasting facades. The one facing the railway line accommodates studio units with northern views across to the former industrial zone and the other, a series of row garages addresses the single dwellings facing the local street. Where the two components meet at the apex of the triangular SLOAP, a landmark tower (with a clock) marks the local roundabout junction.

The proposed infill introduces light traffic through-ways to increase the porosity of the block and allow for pedestrian shortcuts. The ground condition becomes critical for providing access as well as pocket spaces for the pedestrian-oriented environment.

The through-ways lead to the row garages on the side street and on top are roof terraces with lawn areas. The building elements express a more scaled-down approach than the common basement carpark.

## OAKLEIGH

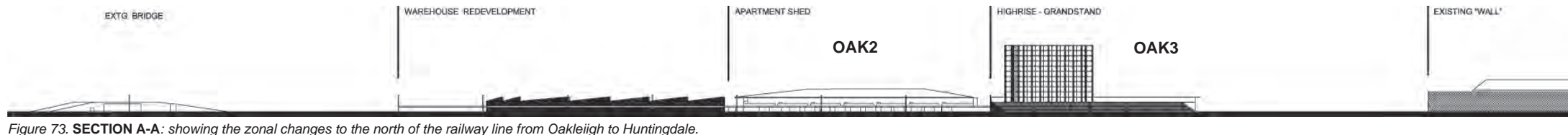
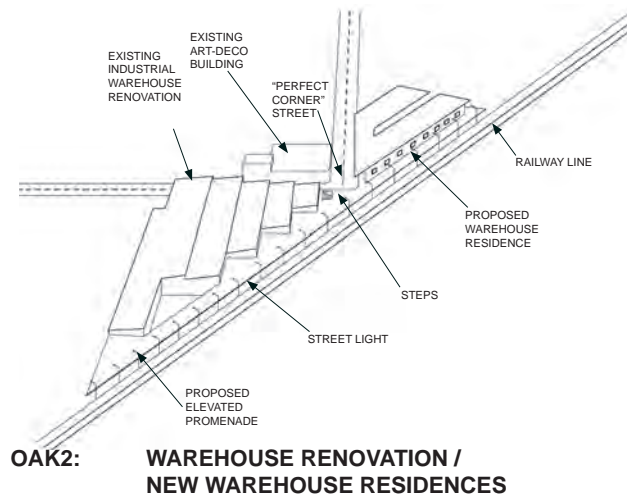


Figure 73. SECTION A-A: showing the zonal changes to the north of the railway line from Oakleigh to Huntingdale.

## HUNTINGDALE



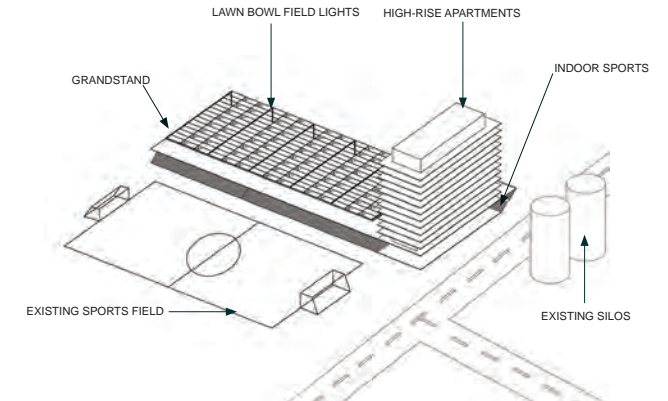
Figure 74. SECTION B-B: showing the zonal changes to the south of the railway line from Huntingdale to Oakleigh.



The proposed new warehouse-type and renovated warehouse residences are connected by an elevated walkway with public garden areas. The walkway is constructed above the existing informal path that leads to the shopping precinct beyond (Oakleigh). The users will now experience an added dimension of height on their journey, offering new vantage points.

Light-traffic areas below stretch between two dead-end streets of an industrial block. The constructed ground above provides shelter and carpark spaces for the units in the renovated warehouse. The proposed residences at the end of the promenade have an inward-looking courtyard (often seen in motel architecture) with carparks below and residential units above.

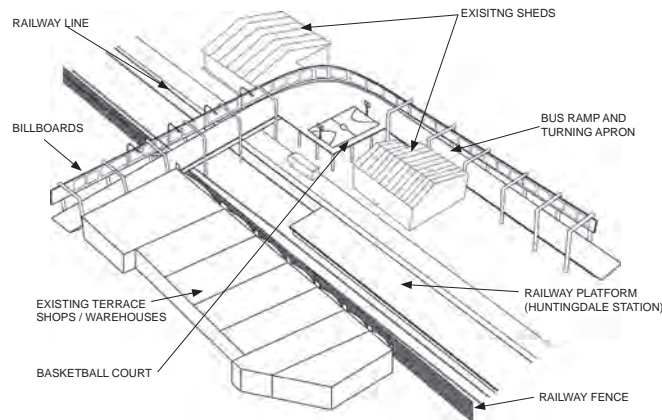
The entire stretch of the promenade is now fenced off to prevent children from going onto the railway easement. The ground is now cleared of obstacles which maintains visual connection.



This ten-storey high-rise tower sits on top of a public podium level containing an indoor sports facility. This extends to become a grandstand facing the existing adjacent sports field. At the back of the grandstand is a new lawn bowl field with night lighting visible from the railway line.

The tower becomes a local landmark, changing the landscape of the low industrial built fabric, and marks the termination of the main street leading to the shopping precinct at the T-junction. The tower frames a local vista from the railway line reinforcing the implied axis from the industrial zone across to the residential fabric. The vertical form juxtaposes with the existing industrial silos opposite.

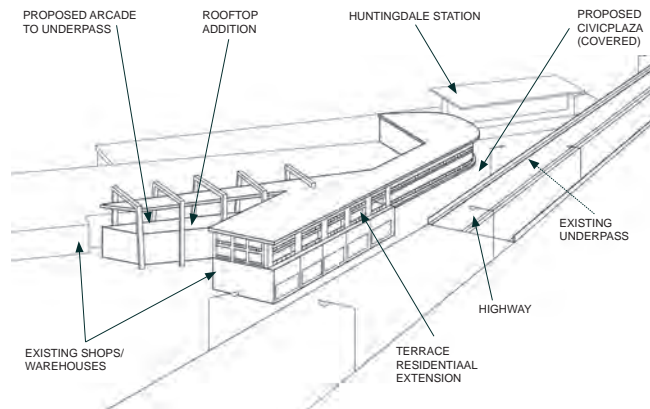
My proposed building introduces a new plot ratio to the neighbourhood using the narrow width of the floor slabs (one-room wide studio residential units) with a tall volume to add a new dimension to the local streetscape.



**OAK4: BUS OVERPASS & BASKETBALL APRON**

The proposed bus overpass defines the boundary of the extent of the station precinct. It allows for efficient vehicular connection across the railway line to ensure the containment of infrastructural development. The infrastructural extension to the bus routes provides street fixtures and fittings (such as public lighting, advertisement hoardings) to increase the civic realm of the station surrounds. A basketball court, incorporated as part of the bus apron, also reactivates some of the areas overshadowed by the former industrial development for community use.

The proposed constructed ground is inserted between two existing industrial sheds and becomes a depot for the buses. This leaves the open-air carpark free at the station front. The infrastructural scale of the intervention remains open to the surrounding neighbourhood and frames the civic space in front of the station. The overhead bridge also helps to signify the station precinct as a destination for the train passengers.



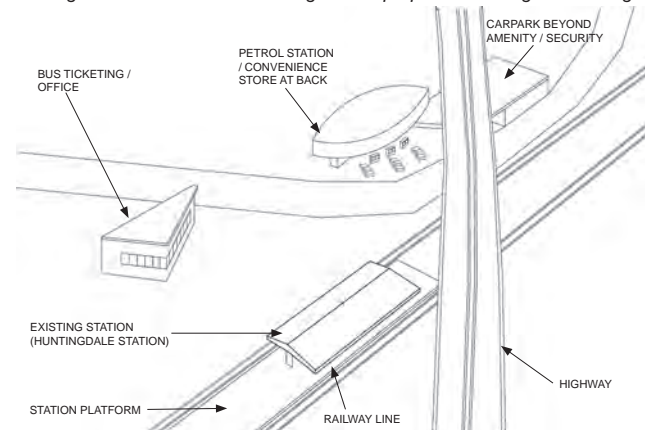
**OAK5: TERRACE SHOP HOUSES / WAREHOUSES**

The proposed extension adds to an existing group of terraces and shopfronts on the side street at the beginning of the North Road overpass. The end block is also the point of access to the pedestrian underpass from the station.

The unoccupied wedge at the end of the block is proposed as a local civic plaza for the underpass users, marking a local destination visible from the station platform. The exposure of this corner site encourages the continuation of the shop frontages around the block and also reactivates the secondary street frontage along the railway line.

Together with the bus overpass, the block now becomes an active island buffering the scale change from the vehicular overpass to mediate with the neighbourhood fabric. The proposed residences above the terrace shops increase 'passive surveillance' of this currently run-down area.

Figure 72. Axonometric drawings of the proposed buildings at Huntingdale

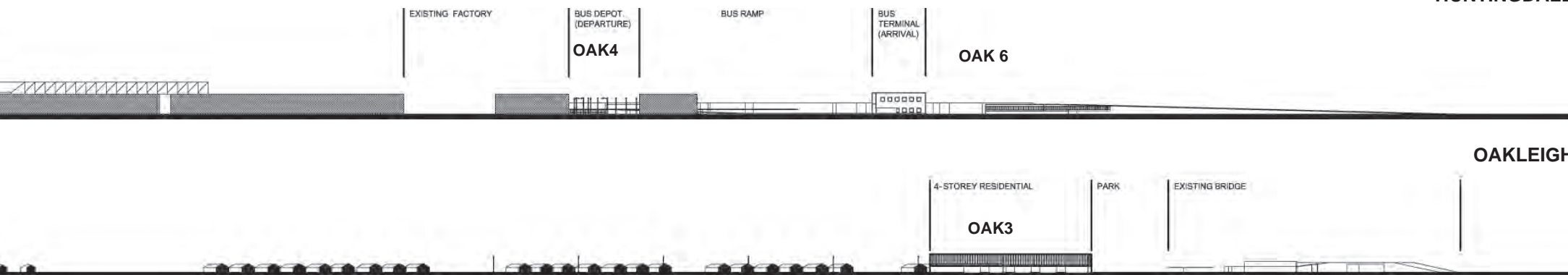


**OAK6: TICKETING / WAITING HALL  
PETROL STATION / CONVENIENCE STORE  
CAR PARK AMENITY BOX**

This series of small buildings completes the figure-8 circuit for pedestrians as well as vehicular traffic on the overpass above.

The proposed ticketing and waiting hall for buses helps orient station users in the large open-air carpark. A new petrol station acts as a beacon, marking the direction towards the main commercial strip and the neighbourhood convenience store. The petrol station / convenience acts as a pivot for guiding the flow of pedestrians towards the public carpark and the bus shelter.

The carpark amenities building has an extended roof to provide cover and a light source at night for the safety and security of carpark users. It also guides the commuters safely from the station precinct to their homes.



HUNTINGDALE

OAKLEIGH



### ‘Stitching’

to connect, using a thread, or join together

The existence of SLOAP in Waverley is produced by the subsequent junction of the suburban fabric with:

1. Monash Freeway easement / highway diagonals
2. electrical transmission line
3. railway line (i.e. Dandenong.)

My proposed strategy to infill follows the switching in land use and zonal pattern caused by the collision of metropolitan elements. It also uses an example of a large-scale development at Waverley Park (by Mirvac) as a vehicle to form a contiguous fabric with the surrounding neighbourhood.

The term ‘stitching’ describes the potential use of secondary infrastructure to collectively gather SLOAP to connect the existing enclaves. Part of the reason behind the use of SLOAP, which in this case, is attached to the electrical transmission line easement, is to revive some of the more traditional meanings of infrastructure and to engage them in a more poetic relationship with everyday life activities. (eg. community backyard activities)

My proposed buildings encompass large-scale gestures that complement the existing landmarks (i.e. Sir Kenneth Luke stand and Waverley Oval), and read as landscape elements to reflect back on the suburban fabric. Along with their functions of providing localised amenities and services, they also exploit the contextual benefit of introducing green spaces (eg. nature strip) into the residential fabric (WAV1), forming an active edge with the infrastructural boundary (WAV2) and incorporating grand vistas (WAV3).

To support the cultivation of community infrastructure, my programs involve collective and mixed uses of SLOAP to integrate the existing role of the site with:

**WAV1** - Collective housing as part of the pathway to local destinations  
(i.e. Waverley Gardens Shopping centre)

**WAV2** - A recycling centre as an extension to the local church addressing adjacency to community amenities.

**WAV3** - A water processing plant / public carpark, as a secondary local infrastructure to serve the surrounding residential enclaves

(top)  
Figure 75. Contemporary aerial photograph of Waverley showing the morphological pattern in the grain of the suburban fabric defined by metropolitan-scale infrastructure .

(bottom)  
Figure 76. Zonal map of Waverley showing the triangular territories switching at major junctions of infrastructural diagonals and the orthogonal grid of the vehicular transport network.

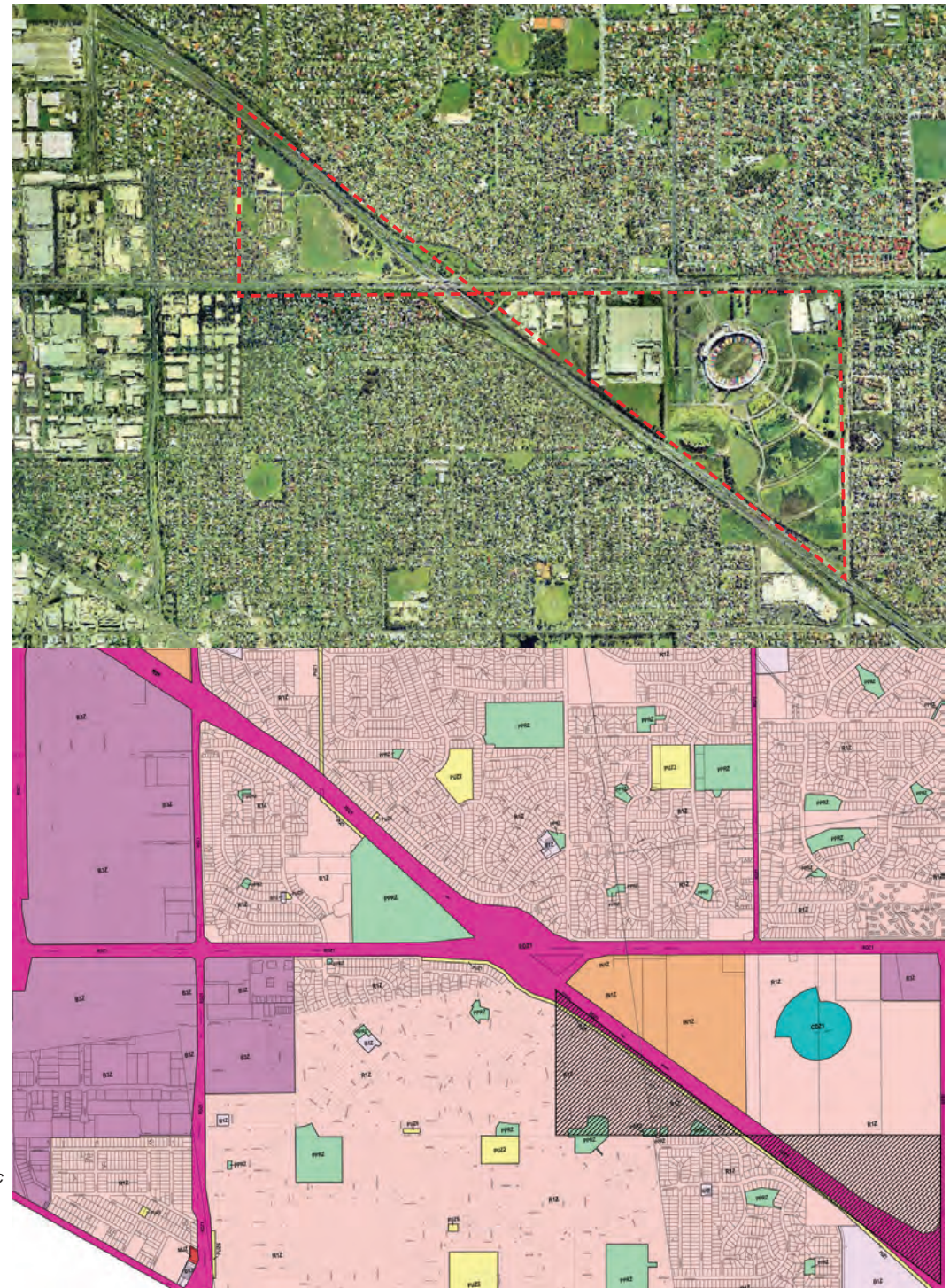
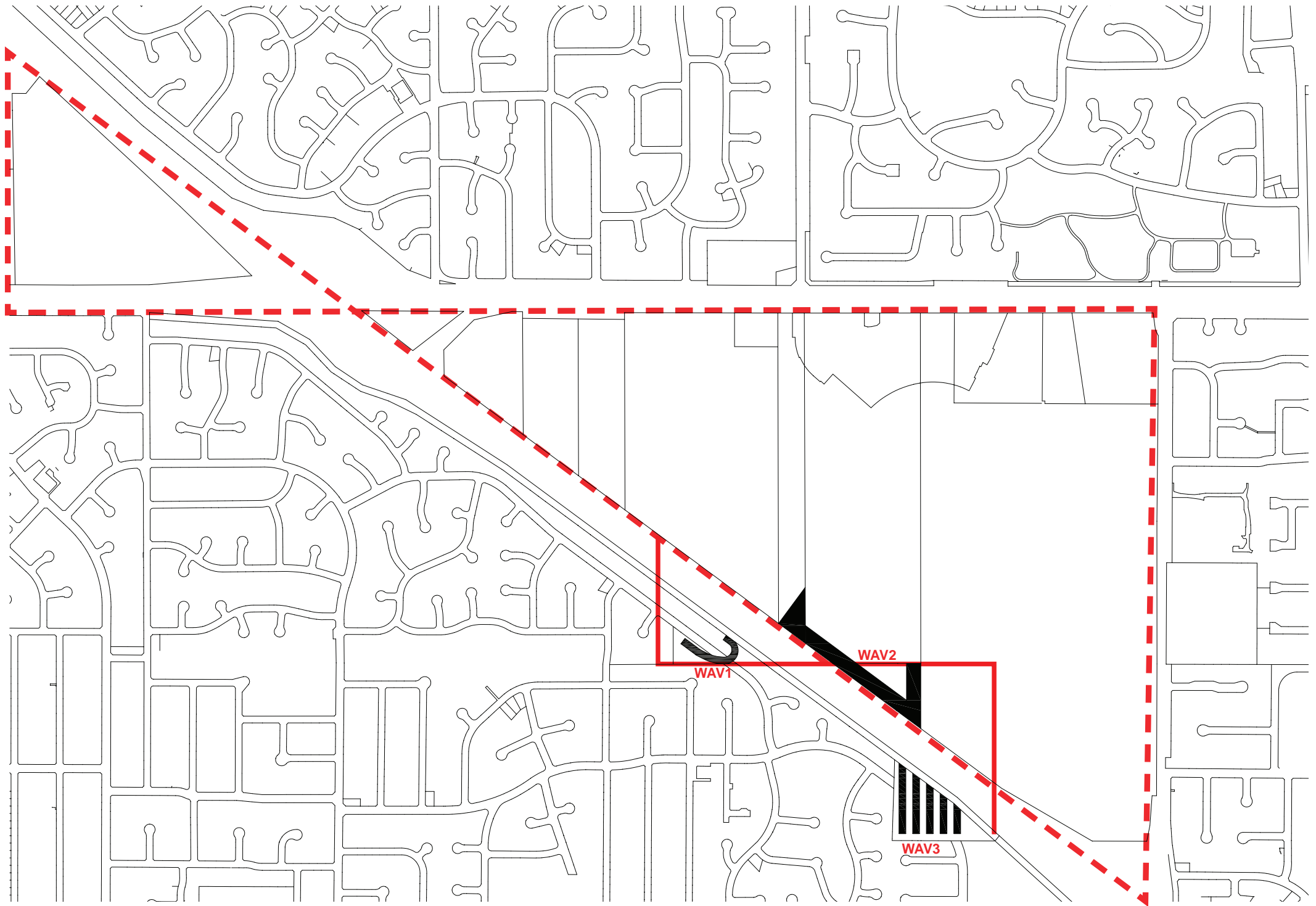




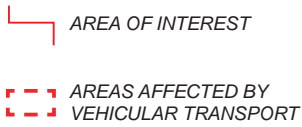


Figure 77.  
Current aerial photographs overlaid on historical aerial map showing the movement of suburban expansion from Oakleigh in the east to Waverley in the west along the land surveyors' grid. The current aerial photos highlight the distribution of infrastructure on former farmlands with the grid overlay for the formation of residential enclaves.

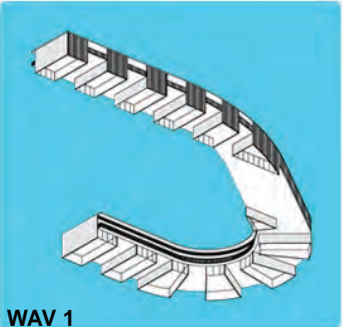




left:  
Figure 78. Current cadastral map of Waverley showing the location of proposed 'stitching' elements on triangular SLOAP sites.



**WAV 1:**  
**Recycling centre / Tennis and squash club**  
Type of Development: Community infrastructure  
Existing Use: Nature strip and reserve  
Site Area: 10,000 sq.m  
Floor Area: 8,000 sq.m  
Occupational technique: Loop  
Building Shape: Hook-shaped



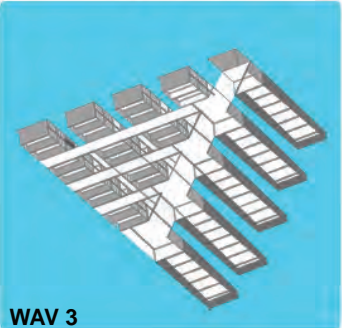
WAV 1

**WAV 2:**  
**Water Processing Plant Multi-storey carpark (Public) Swimming centre / Garden centre**  
Type of Development: Localised service  
Existing Use: Manicured landscape (Proposed by Mirvac)  
Site Area: 16,000 sq.m  
Floor area: 64,000 sq.m  
Occupational technique: Active edge  
Building Shape: Wall shaped



WAV 2

**WAV 3:**  
**Collective housing / Community gardens allotments**  
Type of Development: Public housing  
Existing Use: Walkway / Site earmarked for council development  
Site Area: 21,000 sq.m  
Floor area: 30,000 sq.m  
Occupational technique: Large-scale repetition  
Building Shape: Palm-shaped



WAV 3

(Figure 79: Illustrations refer to proposed infill projects WAV1-WAV3 from top)



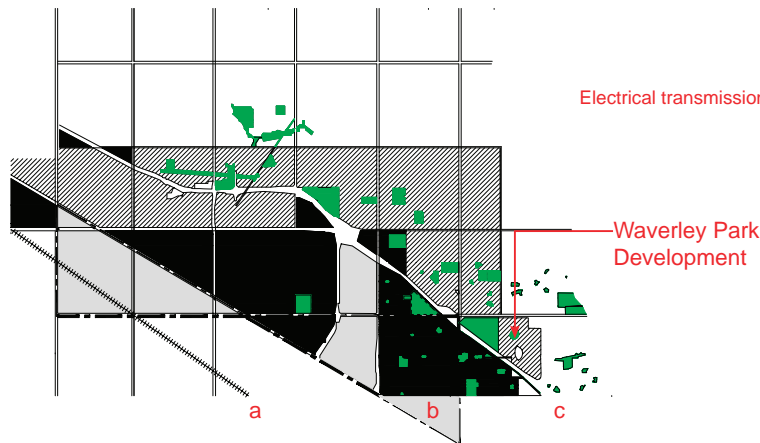


Figure 80. Identification of geometric pattern showing the influence of the infrastructural diagonal on the distribution of open space. The perimeter of the triangular enclaves create a figure X.

#### a). INFRASTRUCTURAL DIAGONALS

Waverley is a relatively new suburb in Melbourne's southeast along the Monash Freeway which follows the radial distribution of infrastructure from metropolitan Melbourne. Both Waverley and Oakleigh fall under the same council of Monash which contains three major infrastructural diagonals running parallel. (Fig. 80)

They developed chronologically in the order of:

- |    |   |       |
|----|---|-------|
| a. | Dandenong railway line                  | 1920s |
| b. | Princes Highway                         | 1960s |
|    | (historical interstate route to Sydney) |       |
| c. | Monash Freeway                          | 1970s |

The developmental pattern at Waverley follows the ward boundaries which correspond with the infrastructural overlay of the metropolitan vehicular transport network.

Waverley is intended by the local council to become a specialised node with its own industries, such as educational facilities and research amenities (e.g. Monash University), to support its dormitory suburb. Its political goal is to distinguish itself from the normal suburban development linked to metropolitan growth by becoming a secondary hub or satellite city.

This is problematic for suburbs dependent on vehicular infrastructure rather than on public transport. Newer suburbs tend to have less potential for community interface than some with more permeable infrastructure such as railway lines (e.g. Oakleigh).

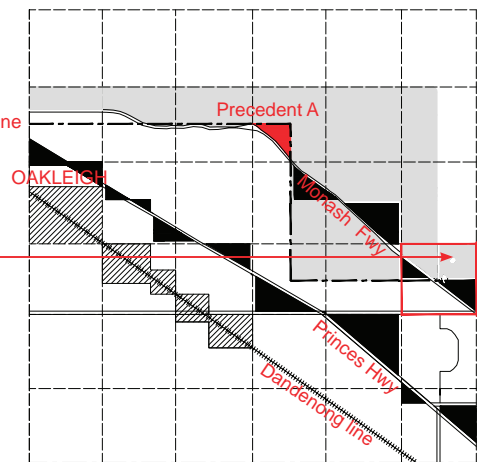


Figure 81. Location of Waverley Park precinct following the infrastructural development of vehicular transport network infilling the land surveyors grid to the east then south.

#### b). THE GRID

The council area of Monash covers both Waverley and Oakleigh with the three infrastructural diagonals (namely Monash Freeway, Princess Highway and Dandenong Line) cutting diagonally across. While the enclosure of a suburb by an infrastructural boundary is at the same time advantageous to a certain extent, securing a sense of self-containment, it also restricts contextual integration. This leaves the infrastructure's contribution only at vehicular junction points rather than to the wider context of its neighbourhood (indicated in black). Opportunities for infrastructural engagement are further undermined by the large-scale institutionalisation of major residential developments. (Fig. 81)

The development at Waverley Park by Mirvac is an example of an enclave which uses a clean-slate approach in redeveloping the former football ground (VFL Park) for a new residential precinct. The precinct at Waverley Park indicates one of the triangles formed with the diagonal of Monash Freeway in meeting with the transmission line and following the orthogonal land surveyors' grid. (indicated in grey).

So far the previous case studies have dealt with the issues of making use of the compositional characteristics of SLOAP, namely their geometries: area, length and width, in relation to their context. However the case studies at Waverley are about configuring fringes of enclaves to combine disparate edges with metropolitan elements (or fabric) affected by infrastructure.



Figure 82. Geometric definition of Waverley Park precinct development forming a figure eight. Case study area defined by Wellington Road, Jackson Road, Springvale Road following the orthogonal grid and Monash Freeway cutting diagonally.

- Melway, ed.30, p,80

#### c). GEOMETRY / Triangles

The selection of SLOAP in Waverley is based on the criterion of repeating the theme of infrastructural attachments as a constant to guide the suburban diversification. This will in turn confirm the perceptual continuity of the association of infrastructural presence with community amenities.

The influence of the diagonal upon the grid overlay is the triangulation defined by secondary infrastructures. SLOAP are produced as a result of the collision of the secondary overlay with primary infrastructure. This informs the local condition of nature strips along the freeway, which are merging with a series of formal and informal reserves. Residential precincts are defined by the figure eight configuration and the urban structure is repeated from macro to micro-scale implications. These phenomena are used as a vehicle for encouraging the exchange of neighbourhood fabric onto adjacent precincts across infrastructure. (Fig. 82)

By configuring existing locations of SLOAP with my proposed infill to give an architectural definition to the place rather than as space left-over, the stigma attached to SLOAP will hopefully be replaced by a renewed sense of the appreciation of the metaphorical function of easement. The connectivity of the network of open spaces offers opportunities in built form for the registration of a spatial configuration that reflects the collision of local conditions and proposed mixed-uses, as well as a scale-shift.

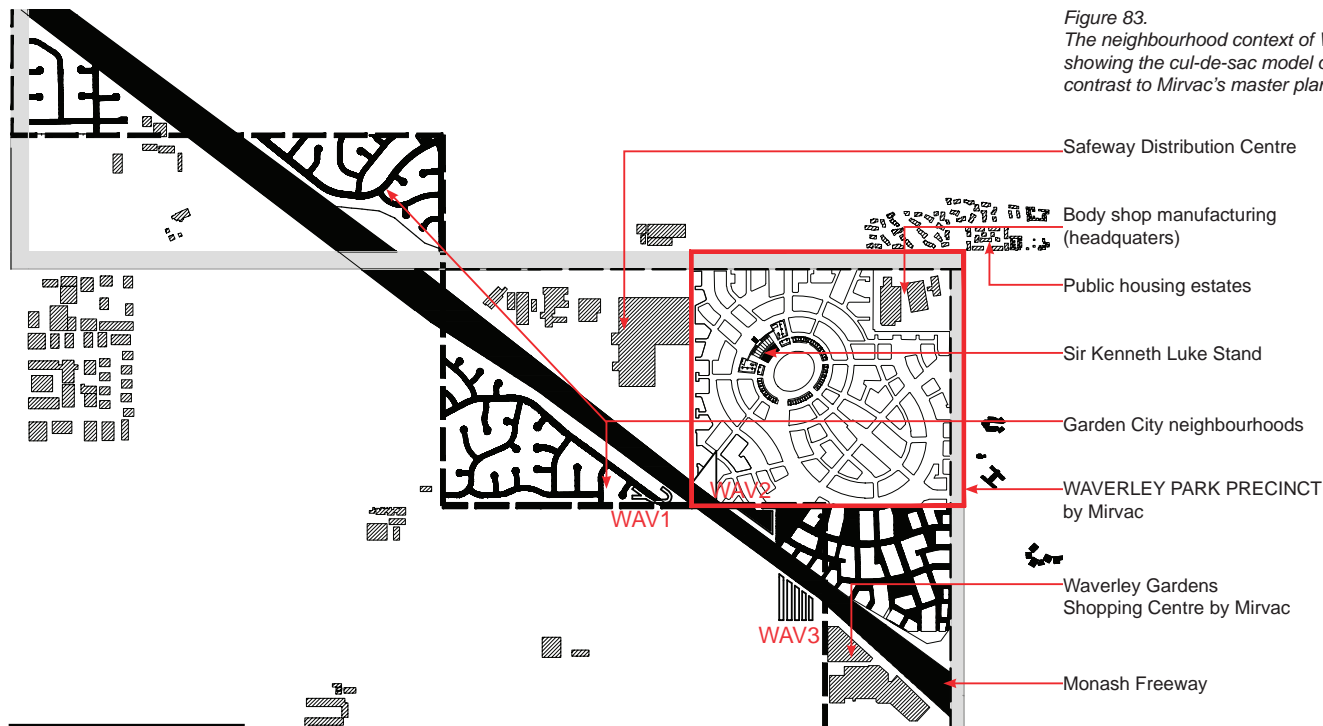


Figure 83.  
The neighbourhood context of Waverley Park development showing the cul-de-sac model on the old residential fabric in contrast to Mirvac's master plan. (Top left)

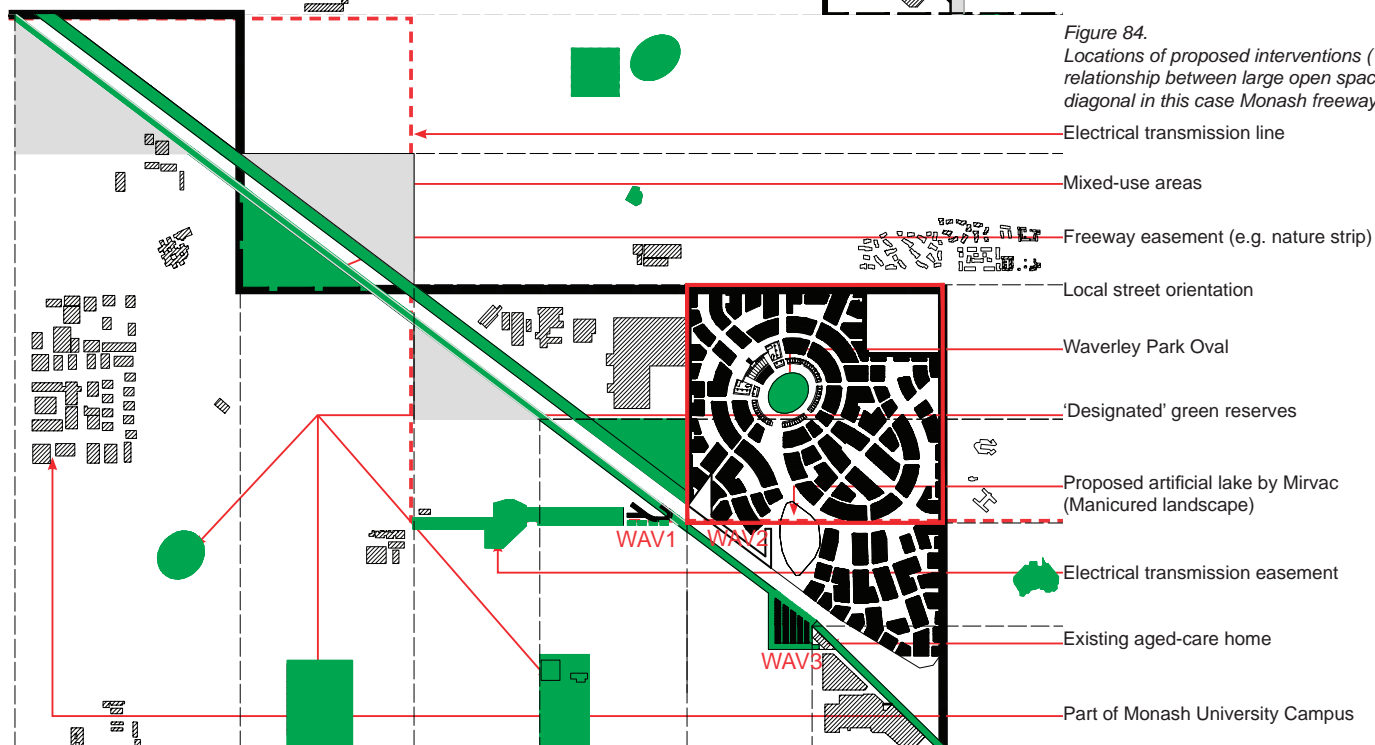


Figure 84.  
Locations of proposed interventions (W004-W008) showing the relationship between large open spaces with the infrastructural diagonal in this case Monash freeway. (Bottom left)

#### d). STREET PLAN AND INFRASTRUCTURE

The planning of Waverley Park by Mirvac is based on an introverted model. Its masterplan reflects the existing football oval in the subdivision of plots used for a mixture of single-family and duplex residences.

In contrast, the Garden City fabric on the other side of the Monash Freeway is characterised by the post-1965 development following the sloping topography towards Dandenong Creek and a curvilinear subdivision plan. Most of the residences back on to the powerline or freeway easement and follow the cul-de-sac model. (Fig.83)

The surrounding context at Waverley is underpinned by the institutional development at major infrastructural junctions. These dictate the macro-scale definition of the geometric pattern of the precinct and enclaves. Waverley Park precinct follows a type of figure eight configuration starting at the junction of Wellington Road and Monash Freeway, which is occupied by a Safeway Distribution Centre.

#### e). OPEN SPACE AND SLOAP

The network of open spaces in Waverley is informed by primary and secondary infrastructures. The key SLOAP are identified as forms of extensions to the nature strips and easements accommodating power lines in a series of formal and informal reserves. (Fig.84)

The Mirvac proposal ignores the presence of the electrical transmission easement, and replaces it with an ornamental manicured landscape. The planning of open space only acknowledges historical landmarks (Sir Kenneth Luke Stand and the oval) as symbolic objects rather than encouraging actual community participation in their use.

My intention is to use the large left-over plots from the Mirvac development as a key to forming a contiguous relationship with the surrounding fabric (including SLOAP across the freeway) to augment the civic significance of buildings at this junction of the electrical transmission line in the mostly residential neighbourhood.





Figure 85. **EXISTING VIEW OF THE NATURE STRIP:** along the Monash Freeway of the older residential fabric opposite the Waverley Park development along the Monash Freeway. The freeway easement is used as an informal extension to the back-yard of the houses as well as an alternative route for pedestrian circulation. The proposal connects both ends of this nature strip with public housing on one side (WAV3) and a recycling centre / tennis and squash club on the other (WAV1).

Figure 86. **AERIAL VIEW OF WAVERLEY PARK PRECINCT:** by Mirvac with the proposed infill building in context of both on the new residential precinct (as well as) the old showing the locations of the selected SLOAP.

A - Nature strip / freeway easement B - Electrical transmission line easement (and reserves) C - Waverley Park Oval with residential development D - Monash Freeway E - Artificial lake and 'manicured' landscape proposed by Mirvac





**f). Mirvac's Master Plan**

The proposed Mirvac master plan for Waverley Park creates a built fabric framing the avenues and boulevards. These mostly focus on the diagonal axis from the north west corner to the south east end at the tip of the precinct. (Fig.87). Evident in the master plan is the bias towards the engagement of the north-east bound edges to the residential precinct along Wellington Road and Jackson Road.

The area of the proposed intervention relates to the site left-over from Mirvac's master plan at the south west perimeter along the Monash Freeway. This area holds a key position in land earmarked for future redevelopment relating to the adjacent fabric across the freeway for public housing as well as a potential site for re-engaging the SLOAP on both sides of the freeway to integrate with their surrounding context. (Fig. 88).

Absent in Mirvac's planning is a clear decision on the treatment of the existing electrical transmission line easement which cuts across the area. Implicit in their intention is either:

1. the relocation of the electrical transmission line underground or,
2. the possible concealment of the infrastructure by a proposed manicured landscape. (Fig. 87)

My strategy of 'stitching' exploits the possible grafting of contextual fabric onto new development using secondary infrastructure (i.e. the existing transmission line). SLOAP are attached to the transmission line to guide the potential connection of the enclaves across the freeway and to incorporate grand vistas with its surrounding neighbourhood (Fig. 86).

The proposed infill buildings overlay a secondary order of community infrastructure on both sides of the freeway. Therefore, my agenda is to preserve and introduce the associated symbolism with which infrastructural types have grown in accumulating local meaning. These include the criteria of addressing local landmarks and integrating community backyards (e.g. nature strip) as part of the civic realm. (Fig. 85)



Figure 87. (above)  
Proposed master plan by Mirvac showing the extent of their development bound by Jackson Road (north-south) and Wellington Road (east-west) of the residential precinct. The location of selected SLOAP (WAV1~WAV3) in relation to the network of open spaces with existing large-scale buildings.

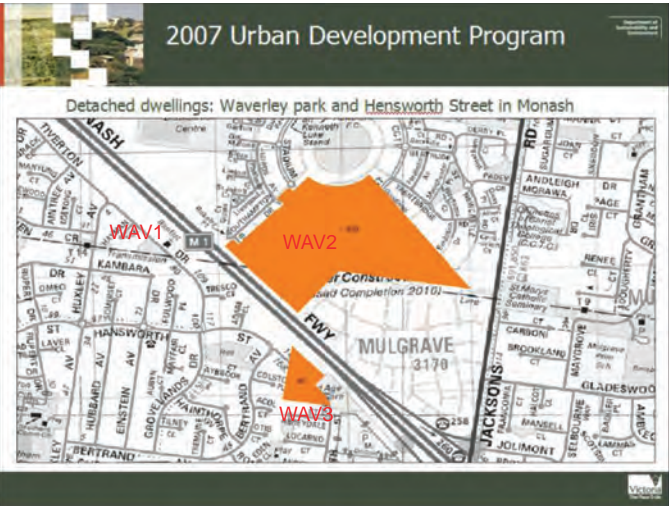


Figure 88. (left)  
Sites earmarked by council for housing as well as other SLOAP

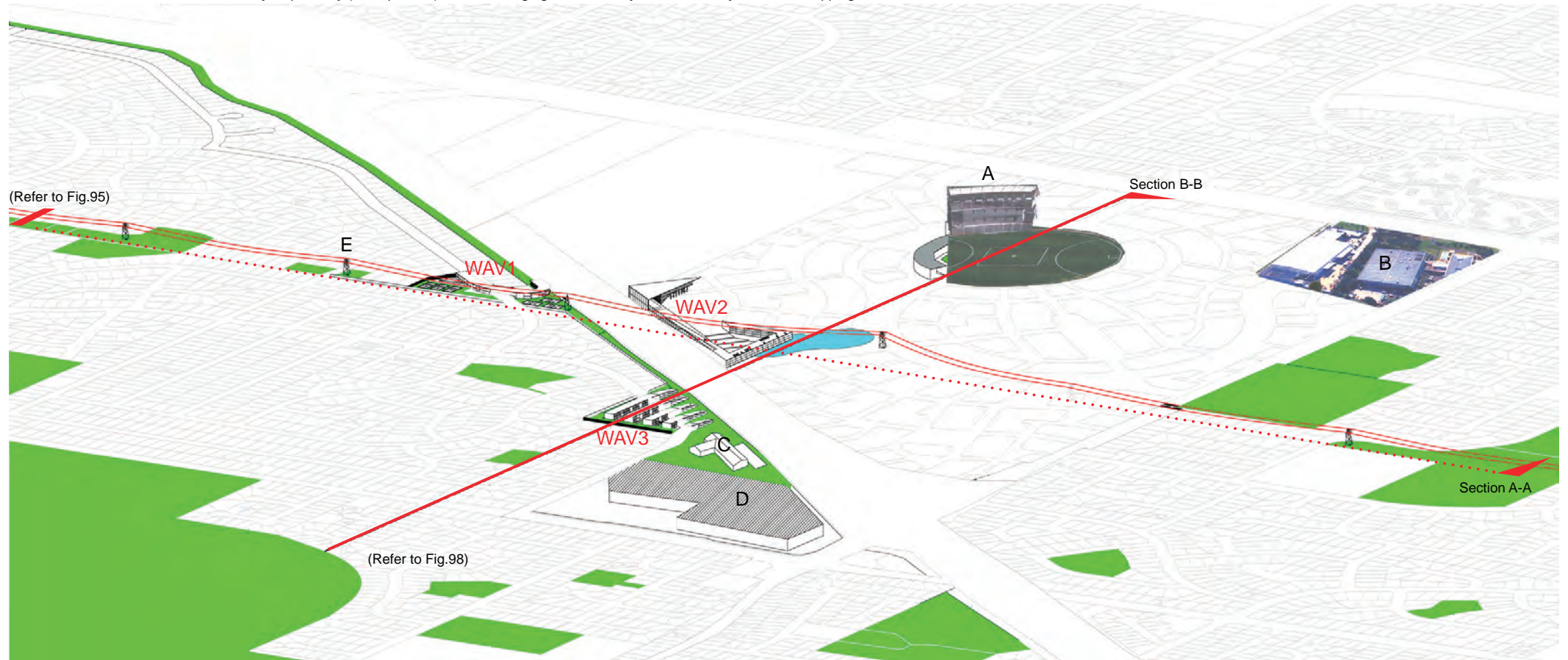
- Clissold Gemma,  
Department of Sustainability and Environment,  
Major Residential Redevelopment,  
Metropolitan Residential Forum,  
2007 Urban Development Program





Figure 89. **EXISTING VIEW OF THE WALKPATH** and open space at the end of the nature strip with the aged care centre. Currently the SLOAP leads to the shopping precinct (Waverley Shopping Centre) beyond. It is a large triangular plot with a gentle slope towards Monash Freeway. The neighbourhood single family houses are mostly single and double storey.

Figure 90. **AERIAL VIEW OF THE PROPOSED INFILL BUILDINGS (WAV1-WAV3)**: along the transmission line marked with potential grand vistas (in red) across Monash Freeway towards Waverley Park precinct. A - Sir Kenneth Luke Stand B - The Bodyshop factory (headquarters) C - Existing aged care facility D - Waverley Gardens Shopping Centre E - Electrical Transmission Line





### g). Community (secondary) Infrastructure

The selection of SLOAP is based on my criteria of activating the significant landmarks to support the historical role of the Waverley Oval as a public stadium and of satisfying practical requirements of providing public amenities to support community participation.

The selected SLOAP play a purposeful role in integrating the enclaves in their neighbourhood context. These include the use of the major axis implied by the physical connection of the electrical transmission line and the grand vista towards the Waverley Park development from across the road by making use of topographical opportunities. (Fig. 90)

The proposed series of community infrastructure functions in addition to the role of easement<sup>40</sup> in extending their traditional functions. The proposed benefit of occupying SLOAP coexist with the criteria of easement in:

- enabling the development of a network of open spaces
- providing and safeguarding sites for infrastructure that support urban areas (such as airports and sewage plants)
- preserving a right of accommodation (for a specific purpose) in land owned by another, such as right of way or free access to light and air

The emphasis is on the potential collective role of Spaces Left-over After Planning.

My intentions are to convert them into buildings and spaces to materialise the shared value of the sites by occupying and manifesting them as community resources. The intention behind the proposed buildings is to establish a rapport with the existing grandstand (Sir Kenneth Luke Stand) in echoing the modernist architectural language as my choice of aesthetics. (Fig. 91)

The ultimate goal is to add to existing landmark typologies with my proposed medium to large-scale buildings. My proposed infill buildings are robust in construction and iconic in nature, without the heroics of monuments.



Figure 91. Sir Kenneth Luke Stand.

Figure 92. Overall strategy of 'stitched' element in existing suburban context.



The main idea behind the series of buildings proposed for WAV1-WAV3 is to form an active boundary to both the residential precinct and the old suburb facing onto the freeway to increase the awareness of it as a perimeter to the enclave. (Fig. 92)

The proposed infill focusses on the perimeter engagement of the suburban fabric with the new development at the periphery.

It achieves this by physically reflecting the infrastructural scale of the freeway back onto the development, to have a reciprocal relationship with the existing landmarks (i.e. the presence of the grandstand and the oval). This involves the partial replacement of sound barriers in localising service amenity (WAV2: Water Processing Plant) and facilities (public multi-storey carpark).





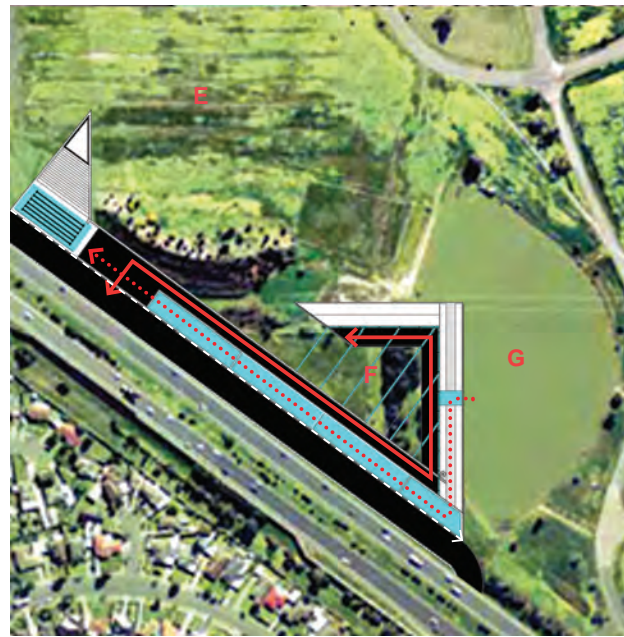
**WAV1 - Proposed Recycling centre / Tennis and Squash Club**

The proposed building is an extension adjoining the existing local church containing a recycling facility on the ground floor and community facility on the upper floor. This is in response to the informal use of the nature strip as a community storage area to the back of the houses (often for discarded white goods and junk). The proposed building physically connects across a local street via a bridge on the upper floor. It offers a vantage point and accommodates a public BBQ area on the public balcony.

The loop configuration enables the connection of two separate SLOAP comprising of two parts. The hook end of the building provides an official collection area for the recycling centre as well as a neighbourhood education centre for recycling. On the upper floor, it also provides an extra hall for the church congregation.

The tail-end of the proposed footprint frames the new open-air tennis courts and forms a boundary to the local street. The new uses superimpose implied voids onto the existing easement. The building itself on this edge contains indoor squash courts on the ground floor and changing facilities on the upper floor. It internalises the existing green reserve, providing a backdrop to the neighbouring backyards.

The overall built form adheres to the existing height of two-storey dwellings yet enables views across Monash Freeway. These are normally not possible with residential buildings because of overlooking issues.



**WAV2 - Proposed Water Processing Plant / Sports Centre**

Located at the termination of the Mirvac proposed manicured landscape is this large-scale building which embraces the artificial lake and existing transmission easement with an internal atrium. Its purpose is to localise services needed for the scale of the Mirvac development and surrounding suburbs, at the same time, raise the presence of public amenities within the residential precinct.

The proposed building is a water processing plant and a public multi-storey carpark. The length of the building makes use of the linear process of the plant required for the sedimentation ponds stacked along the freeway. These finally cascade down into the olympic swimming pool attached at the lower end of the facility.

The swimming centre accommodates an indoor pool (50m) and is also the last stage of the water processing, involving the chlorination of grey water filtered from the sedimentary process. The excess water is released onto the compost farm within the atrium bounded by the building.

At the termination of the building is another familiar suburban icon, garden centre, tucked below the grandstand of the swimming centre which marks the northern boundary of the precinct. This creates a sense of destination to the edge of the residential precinct and is also a point of access for service vehicles, to avoid having to travel through the narrow streets of the residential precinct.



**WAV3 - Proposed Collective Housing & Garden Allotments**

The existing triangular site is split into two parts by an informal walkway from the surrounding residential fabric to the nearby-Waverley Gardens shopping centre at the junction of Monash Freeway. (see Fig. 89).

The back half of the blocks abutting the highway are dedicated to both community gardens allotments and the dwelling units occupy the other half towards the neighbouring built fabric (single-family homes).

This addresses the thickening of the edge towards a vehicular infrastructural junction with the nature strip at the back of the residential fabric terminating in a community backyard leading towards the shopping precinct (Waverley Gardens).

The land is presumably a by-product of the cut-and-fill method used for the excavation work on the freeway. With the introduction of new public housing, the termination of the local street becomes a formalised pedestrian thoroughfare serving the local neighbourhood. The existing walkpath is also proposed as a series of covered walkways with the new private road cutting against the orientation of the linear housing blocks.

The proposed hand print of the building allows for the incorporation of the nature strip into the backyards of each of the units facing onto the open space. The proposed community housing acts as an extension to the notion of 'community backyard' by mediating the integration of shopping precinct into residential fabric.



## EXISTING CONTEXT:

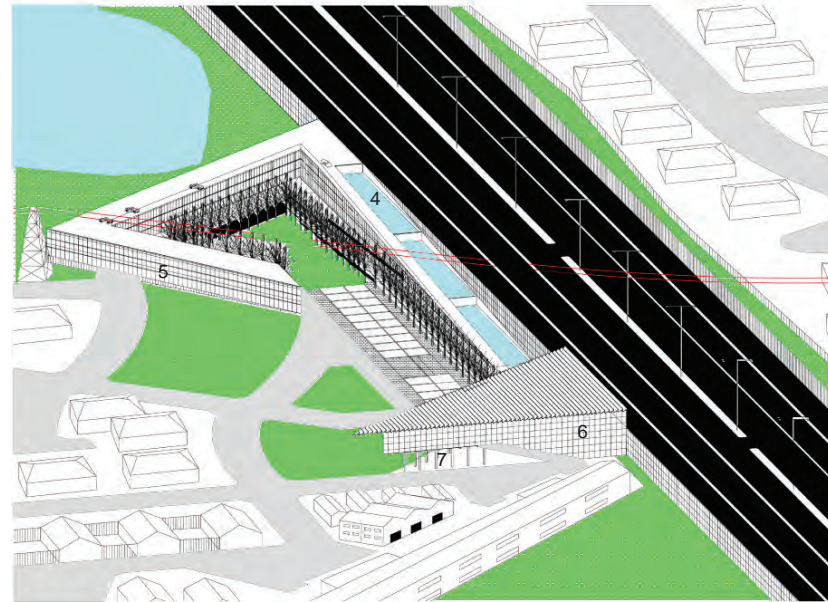
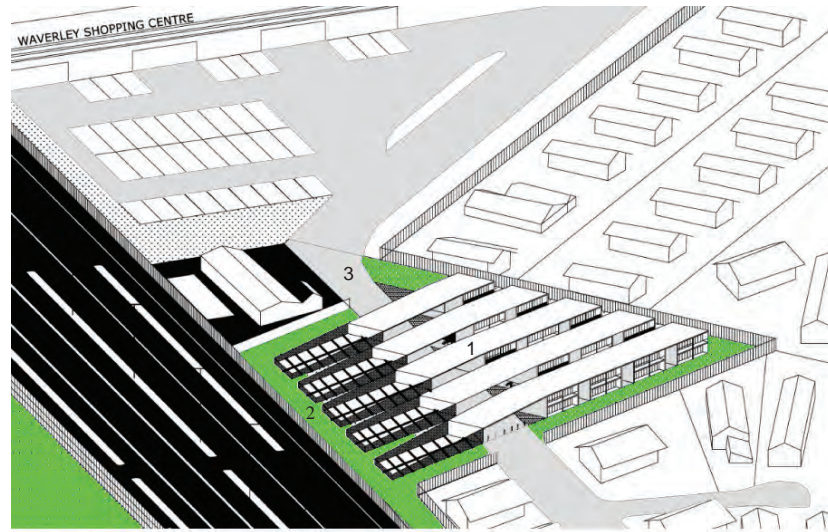
- A. Safeway distribution centre  
(Transport logistic hub)
- B. Existing nature strip / backyard
- C. Existing green reserve
- D. Existing local church
- E. Proposed Waverley Park Development  
(by Mirvac)
- F. Site earmarked by council for redevelopment
- G. Proposed artificial lake / (by Mirvac)
- H. Existing aged-care centre
- I. Existing walkway to shopping centre
- J. Existing storage and docking facility for  
Waverley Gardens shopping centre
- K. Existing shopping centre  
(Waverley Gardens)

← Main access route

← - - - Alternative access

◀... Water circulation

Figure 93. Aerial montage of each of the proposed infill in context of surrounding neighbourhood. (left)



## PROPOSED INFILL BUILDINGS:

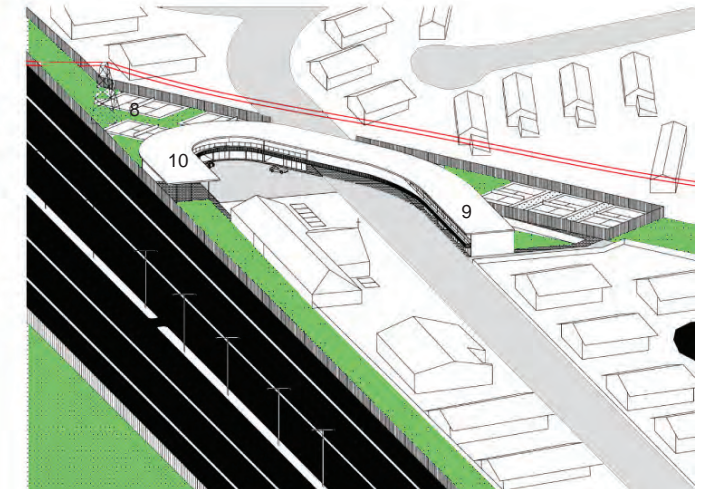
- 1. Proposed public housing
- 2. Proposed garden allotments /  
community gardens
- 3. Proposed private road / Pedestrian path
- 4. Proposed water processing plant  
(Sedimentary ponds)
- 5. Proposed multi-storey car park (Public)
- 6. Proposed swimming centre
- 7. Proposed garden centre
- 8. Proposed open-air tennis courts
- 9. Proposed indoor squash courts
- 10. Proposed recycling facility

Figure 94. Axonometric view showing the overall strategy of 'stitching' following the secondary infrastructure (i.e. electrical transmission line). The proposed infill buildings are in response to the implied axis of the orthogonal grid offering vistas onto the new development to form a contiguous relationship with the surrounding neighbourhood.

## WAV3: Proposed Collective Housing & Garden Allotments

## WAV2: Proposed Water Processing Plant / Sports Centre

## WAV1: Proposed Recycling Centre / Tennis and Squash Club





## WAV1: Recycling centre / Tennis and Squash Club

The site abuts Monash Freeway introducing the nature strip into the residential fabric connecting the transmission easement. The idea behind the loop configuration of the building footprint is to consolidate two existing separate SLOAP by maintaining their functions as easements and at the same time make use of the voids as community open space (i.e. Tennis and squash courts).

The SLOAP themselves are an informal carpark next to a local church and a formal reserve opposite. The proposed extension acts as an annex to the existing local church to increase and encourage awareness and use of public amenities by introducing subsidiary programs. (e.g. recycling centre and a hall).

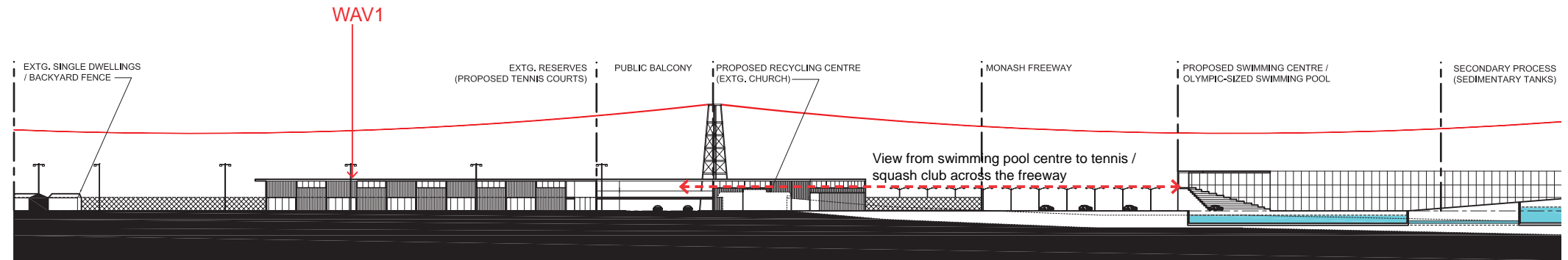


Figure 95. **SECTION A-A** across Monash Freeway from the older suburbs onto the Mirvac development showing connection of the transmission line with the SLOAP infill on both sides of the freeway.

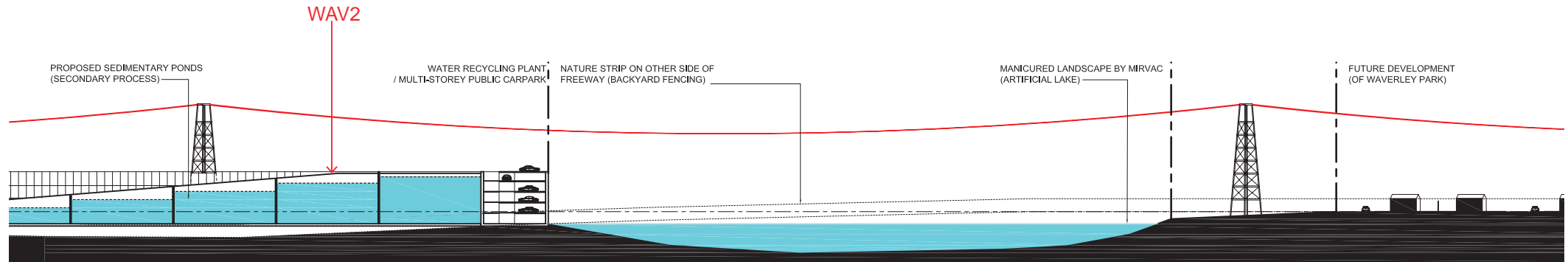
Figure 96. **EXISTING VIEW OF MONASH FREEWAY:** from the Mirvac development site showing the area left-over for future development on the south eastern corner of its master plan



## WAV2: Water Processing Plant / Sports and Garden Centre

This large-scale infrastructural building supplements the lack of car parking caused by the narrow streets in Mirvac's plan. My proposed building aims at a practical solution to provide more carparks for the public in predicting the future operation of the oval as a public stadium. The building forms an active edge to the perimeter along the Monash Freeway, partially replacing the sound barrier.

The building is also a localised water processing plant for serving the large residential precinct and perhaps even for the surrounding neighbourhood. Besides providing a landmark visible from Monash Freeway, complementing the existing grandstand, it encourages poetic engagement of the secondary infrastructure by the integration of familiar programs such as a garden centre combined with the swimming centre.





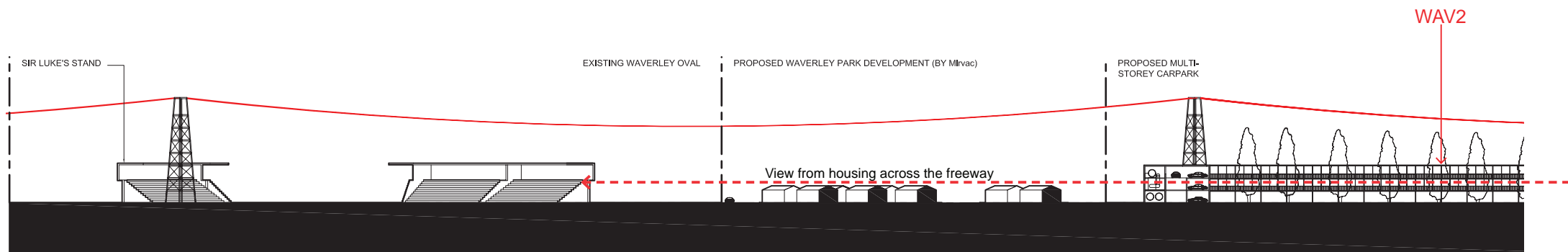


Figure 97. **SECTION B-B** showing the visual axis enabled by vistas across the freeway. The grandstand across at Waverley Park is visible through the gaps in between the dwelling blocks using the gentle slope with dwelling units at the highest point.

Figure 98. **PROPOSED VIEW OF THE GARDEN CENTRE (WAV2)**: located underneath the grandstand of the proposed swimming pool centre (WAV2). In Mirvac master plan, this is a dead-end where a boulevard meets the freeway .



### WAV3 - Community Housing with Garden Allotments

The proposed housing consists of a series of 15m wide blocks spanning north to south with open spaces in between. The slightly sloping topography along the open strips offers visual connections across the highway to the Waverley Park development on the other side of the freeway (Monash) and the view of the grand stand at the Waverley Park precinct. The blocks themselves are two-storey to fit the neighbourhood context.

Each block can accommodate different configurations, for example, single units (studios), duplexes, communal / shared units, and family units through the connection of upper floors. The units are separated on the ground by public access roads / walkways but tied together with a continuous roof over each linear block.

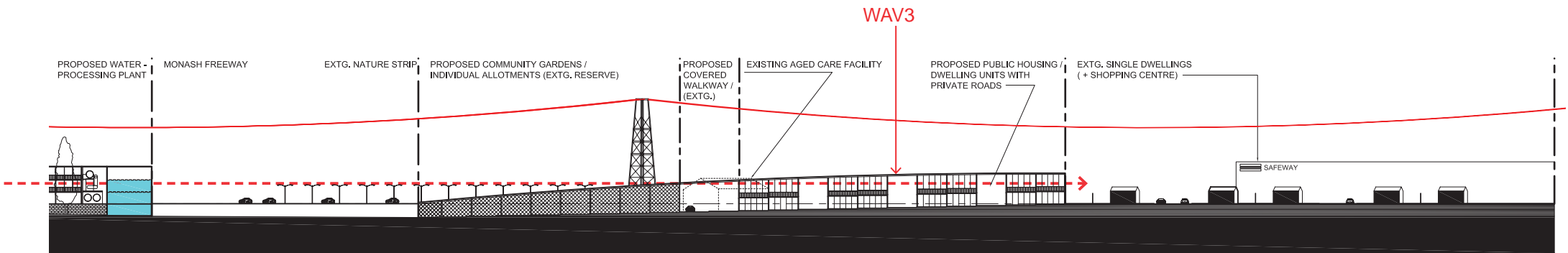


Figure 99. **PROPOSED VIEW OF THE COMMUNITY HOUSING (WAV3)** and garden allotments (left) looking towards the existing aged care centre. A series of roofs covers the existing walkpath (refer to Fig.89) to Waverley Shopping centre beyond.





**EXISTING:**

- i. Local Church
- ii. Nature strip / Backyard
- iii. Monash Freeway
- iv. Single-family dwellings / Backyard fence
- v. Green reserve
- vi. Local street
- vii. Electrical transmission line / Pylons

**PROPOSED :**

- 1. Open-air tennis court
- 2. Indoor squash facility / Changing rooms
- 3. Club administration and first aid
- 4. Access / Private road
- 5. Recycling centre
- 6. Drop-off apron and collection
- 7. Paved Area
- 8. Bridge and community hall above

View from the church annex towards the proposed tennis / Squash club

glass

metal

plastic

paper

0 5 10 50m

N

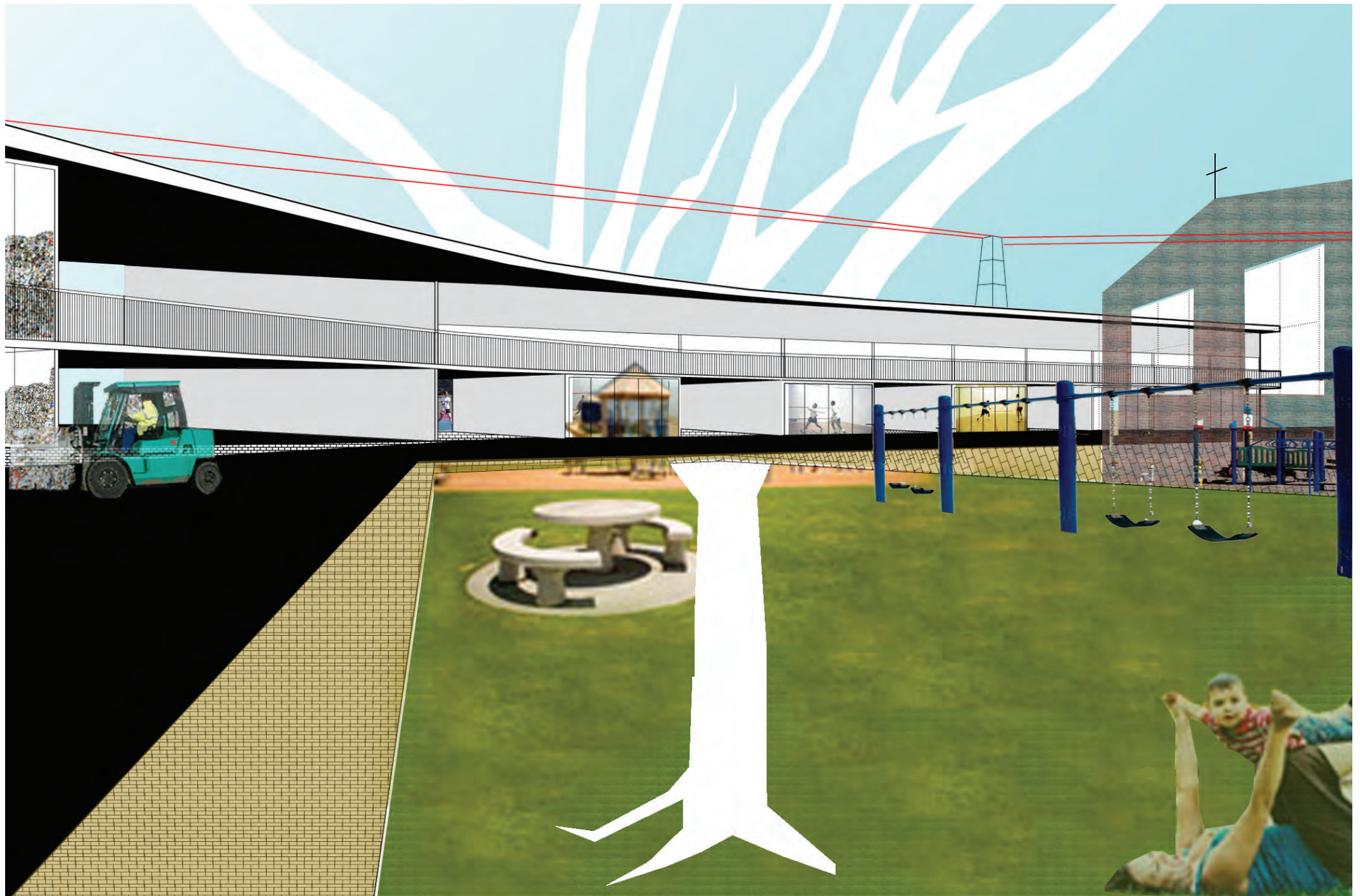


Figure 101. **PROPOSED VIEW FROM THE CHURCH ANNEX** at the 'hook' end of the recycling centre, set back from the existing local church to allow drop off and to connect pedestrian network via the nature strip backing onto the freeway. Across the road is the tail end of the tennis club with compartmentalised indoor squash courts below and amenities above. Behind are open-air tennis courts with the building acting as a backdrop for the reserve in edging single-family homes beyond.



# WAV 2: WATER PROCESSING PLANT / MULTI-STOREY CARPARK (PUBLIC) AND SWIMMING POOL / GARDEN CENTRE

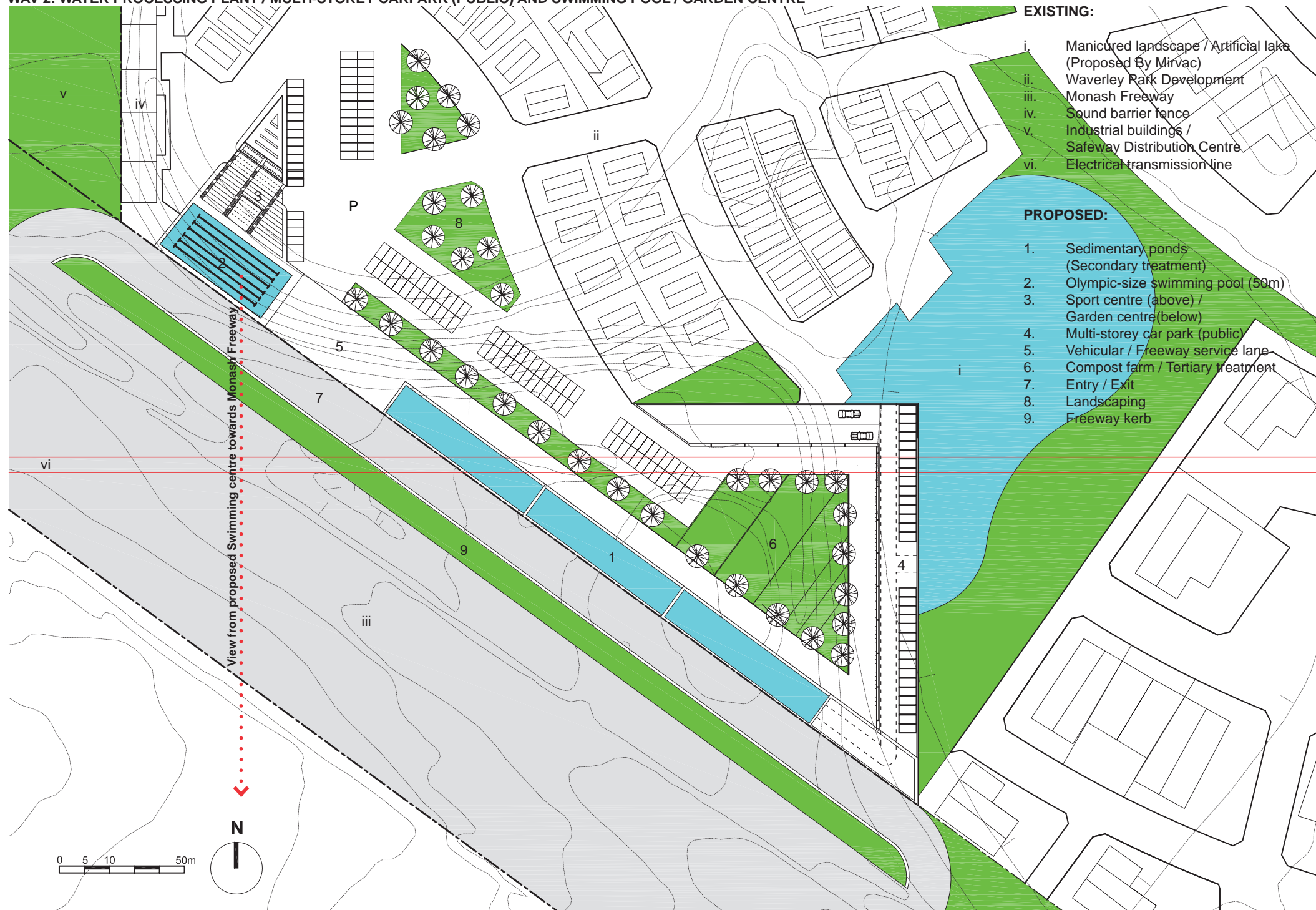


Figure 102. PROPOSED PLAN of the water-processing plant

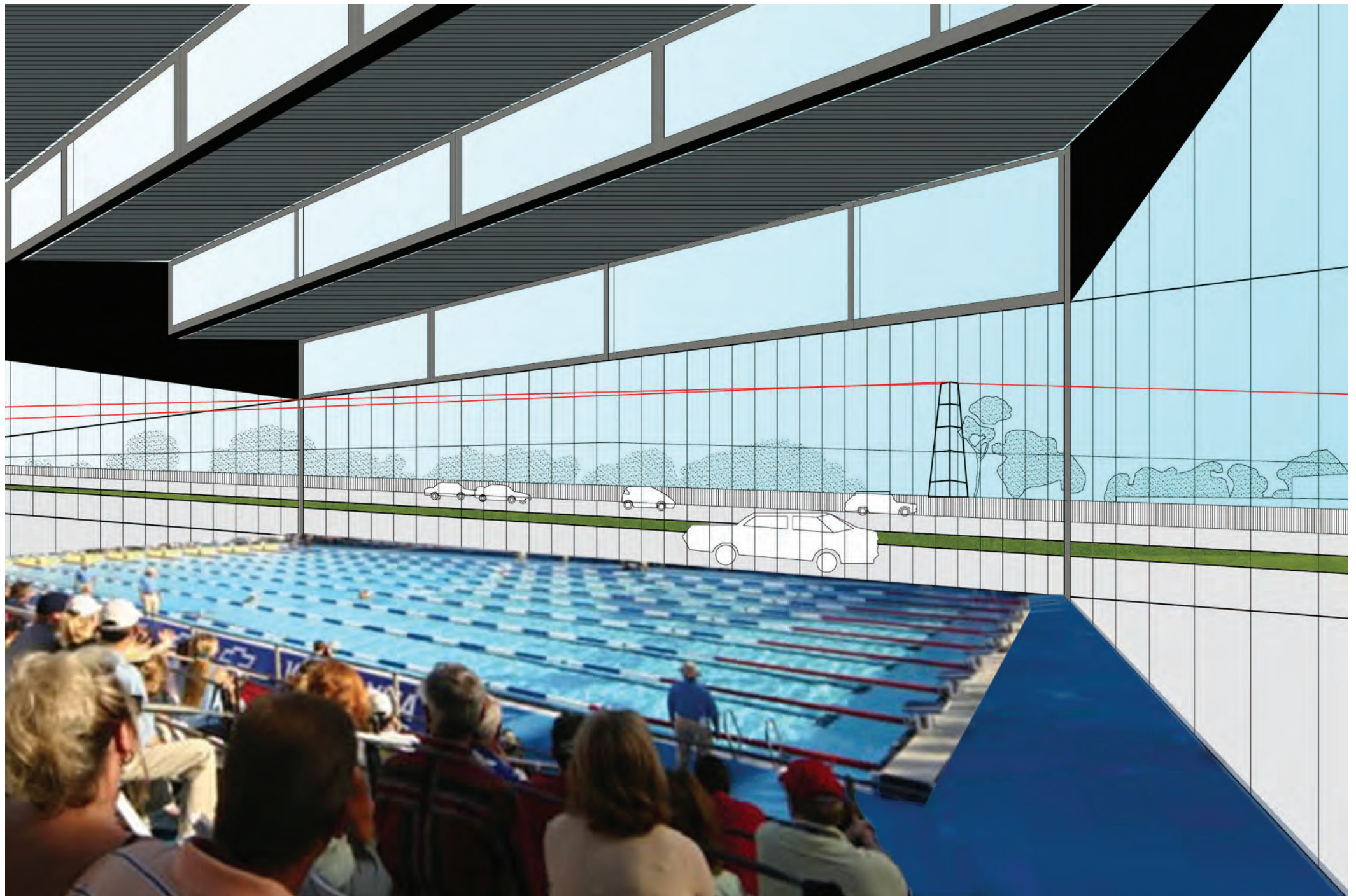


Figure 103. **PROPOSED VIEW FROM THE SWIMMING CENTRE (WAV2)** towards Monash Freeway. This is in active engagement of the edge in replacing the normal sound barrier wall around the perimeter of the residential enclave. The cascading steps of the grandstand allow spectators viewing the pool to also glimpse the neighbourhood fabric opposite. The water used for the swimming pool is the chlorinated water from the final stage of water processing.



### WAV 3: COMMUNITY HOUSING WITH GARDEN ALLOTMENTS



Figure 104. PROPOSED PLAN showing the different configurations to the layout for the housing types.



Figure 105. **PROPOSED VIEW ACROSS WAVERLEY PARK PRECINCT** looking towards Sir Kenneth Luke Stand over Monash Freeway. The view is enabled by the gentle slope towards the freeway highest at the dwelling. Between the front and back yards of the dwellings is a lawn area extended from the nature strip between each of the housing blocks. The back portion of each dwelling block is divided into garden allotments for residents as well as 'community gardens'.



## **Chapter 2 - CASE STUDY PROJECTS**

### **2.2 Non - Diagonals Analysis**

#### **2.21. PROJECT 3: *'Acupuncture'* - Broadmeadows**



Figure 106. Cadastral map of Broadmeadows with air rights of the flight paths from Melbourne international airport overlaid with current aerial photography of the infill development towards the new town centre.



### ‘Acupuncture’

#### Vital injection, prognosis, of releasing pressure

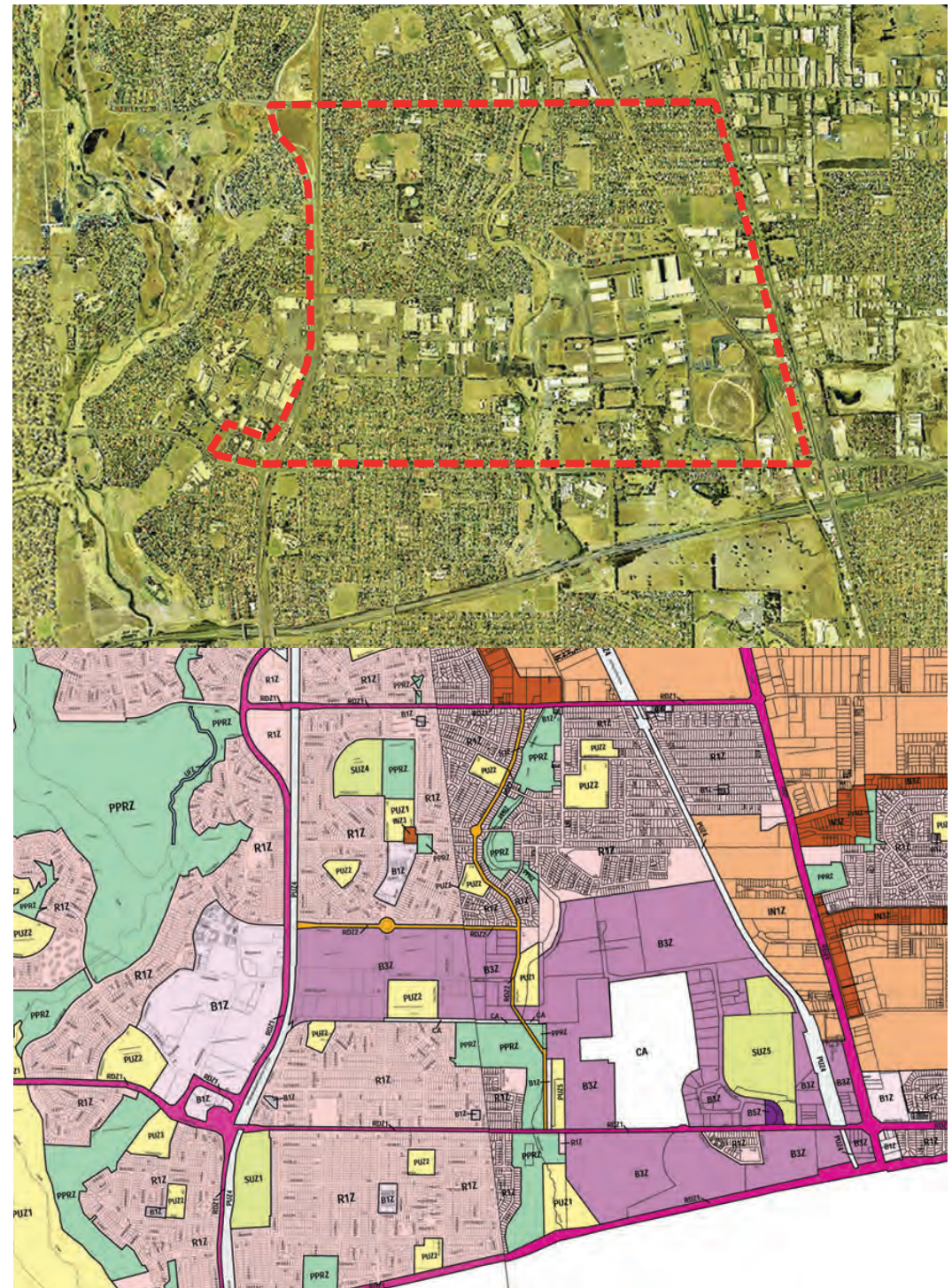
Broadmeadows is envisaged as a principal activity centre by Melbourne 2030 in speculating on its development as a growth corridor and in its close proximity to both domestic (Essendon) and international (Tullamarine) airports. As such, the zonal development in Broadmeadows reflects the use of large land parcels (see Fig. 108, B1Z and B3Z) following the impact of air-rights accommodating the flight path in the east-west direction (Fig. 106). The type of development currently proposed for the redevelopment of its current town centre is typical of ‘dormitory’ suburbs becoming satellite cities.

One of the issues identified in the council's Broadmeadows Master Plan<sup>41</sup> is the lack of connection and attention to the east of the railway line opposite the proposed town centre. Many of the existing community amenities and services are now under threat as a result of developmental pressure on the centre. (Fig. 107 highlighted in dashed red line)

I see the strategic redistribution of community infrastructure as vital to the creation of new focal points for restructuring the suburban fabric and try to achieve this by introducing secondary (local) nodes at the periphery.

The SLOAP I plan to utilise are found as isolated moments within the existing context where scale shifts in built form and zonal changes occur. The aim of the proposed buildings is to mediate these differences and for them to act as buffers. The new buildings preserve the existing informal uses in built form as well as combine civic amenities with other communal functions.

The proposed treatment of SLOAP seeks to activate their latent formal mechanism along with the proposed programs based on the contextual adjacency to the neighbourhood fabric for introducing civic functions.



(top right)  
Figure 107. Current aerial photograph of Broadmeadows showing the texture and grain of its suburban development.

(bottom right)  
Figure 108. Zonal distribution of Broadmeadows showing large open spaces and institutional / commercial areas (B1Z~B3Z)



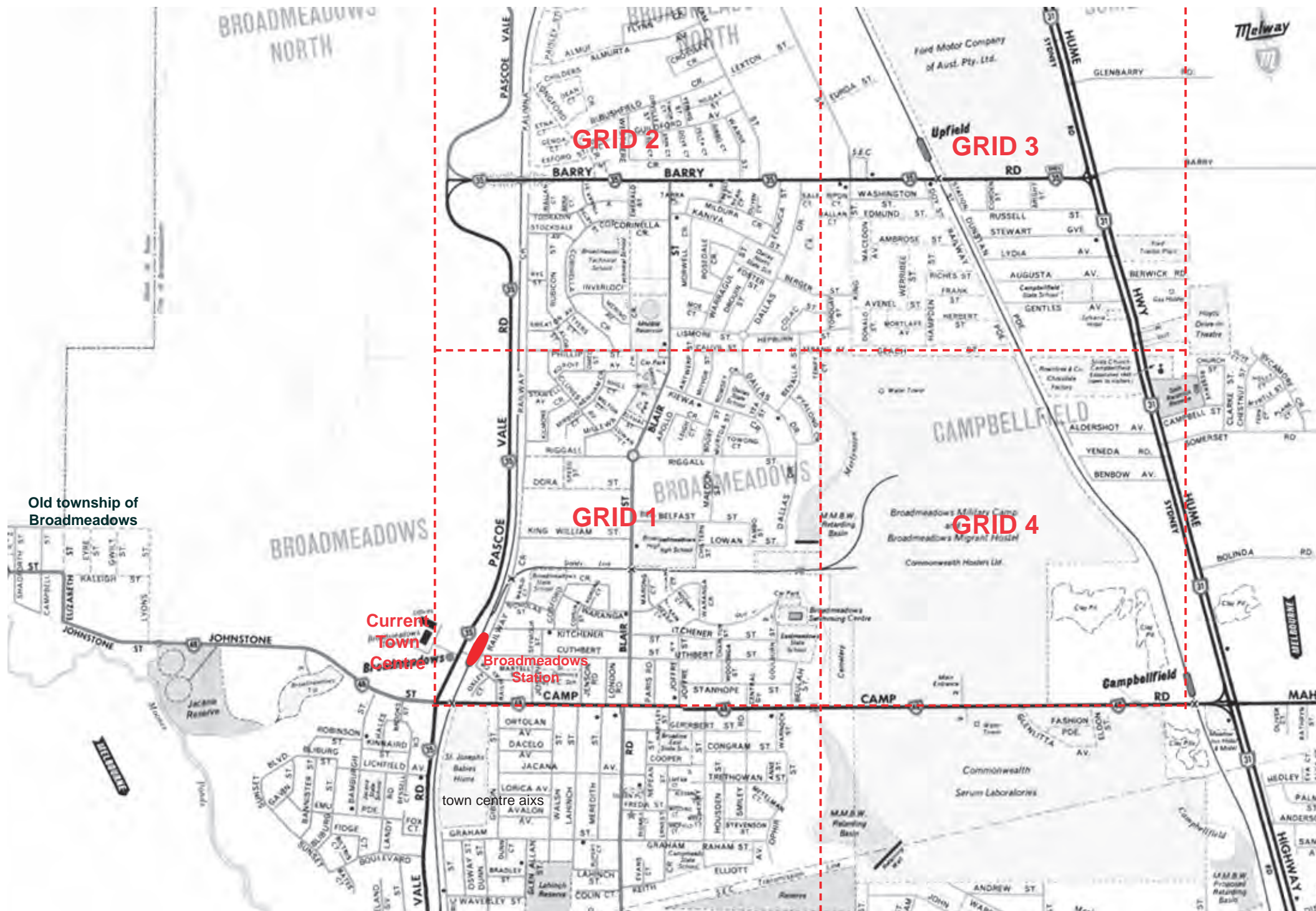


Figure 109. Overall map of Broadmeadows with the division by the land surveyors' grid (approx.2km). The current town centre is located next to Broadmeadows Station.



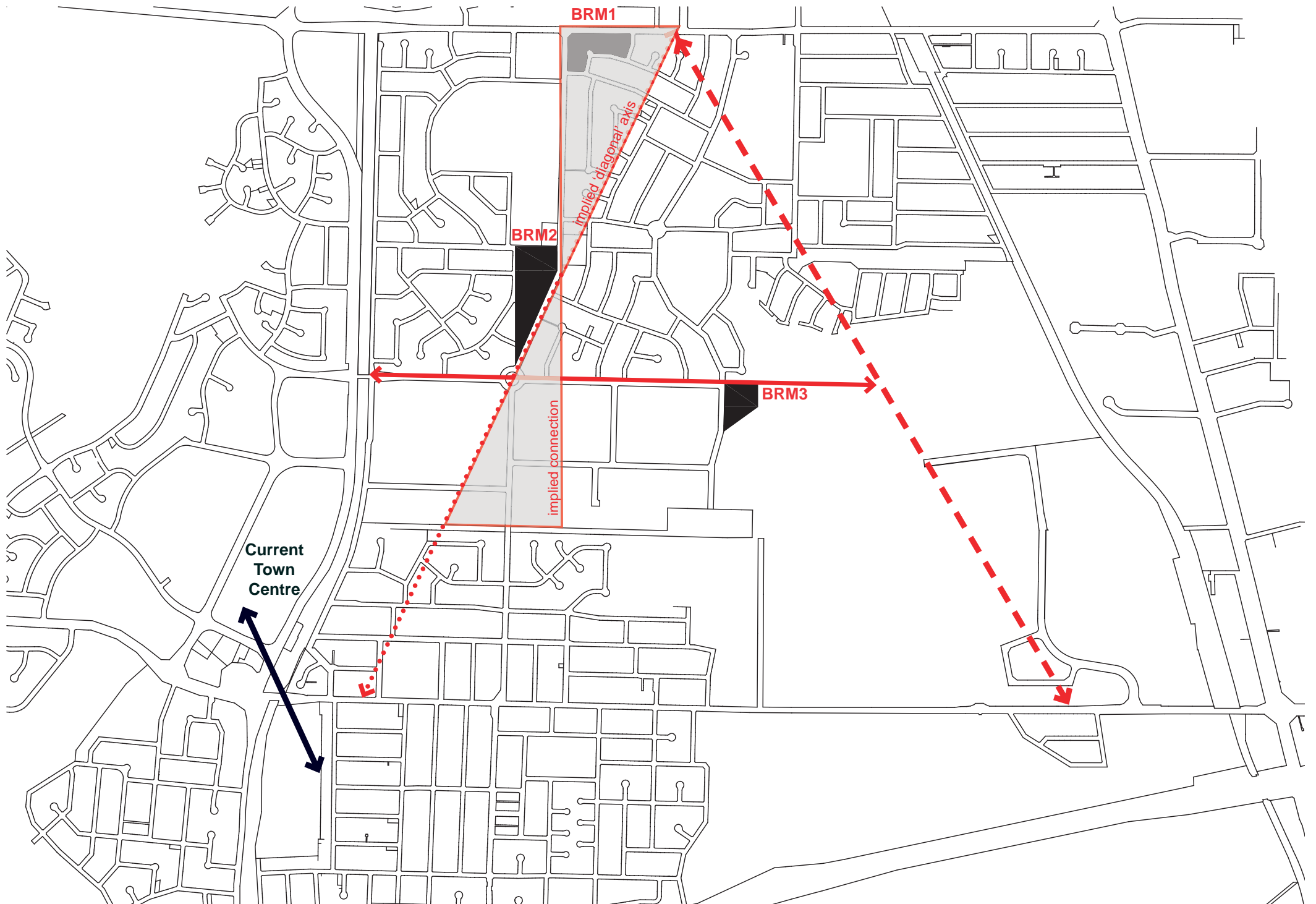
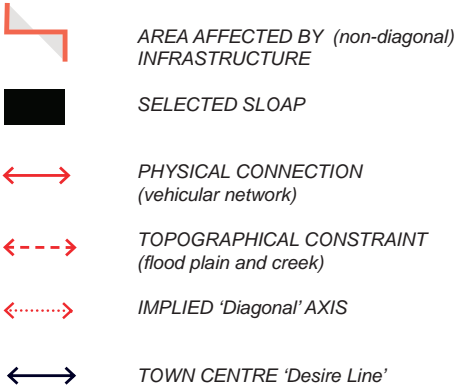
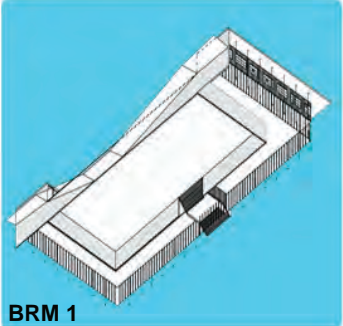


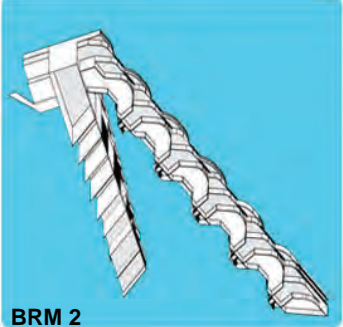
Figure 110. The selection of SLOAP and the location of sites in relation to the 'acupunctural' treatment of Broadmeadows.



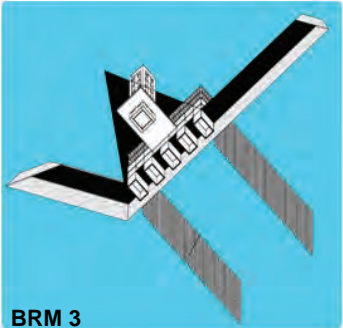
**BRM 1:**  
Type of Development: Post office / Police station  
Existing Use: Civic amenity  
Site Area: Green reserve  
Floor area: 4,000 sq.m  
Occupational technique: 6,000 sq.m  
Building Shape: Inverted corner  
C shape



**BRM 2:**  
Type of Development: Residential complex & car park tower / Small office home office (S.O.H.O)  
Existing Use: Residential complex  
Site Area: Open air carpark  
Floor area: 15,000 sq.m  
Occupational technique: Asymmetry  
Proposed building Shape: V shape  
Proposed Floor area: 50,000 sq.m



**BRM 3:**  
Type of Development: Recreational facility  
Existing Use: Golfing range  
Site Area: Off-road bike track  
Floor area: Recreational centre  
Occupational technique: Flood zone  
Building Shape: 10,000 sq.m  
Wing shape: 5,000 sq.m  
Pivoting  
Wing shape



(Figure 111: Illustrations refer to proposed infills BRM1-BRM3 from top)



## a). BACKGROUND

Historically the township of Broadmeadows is based on the riverine settlement idyllically located along Monee Ponds Creek to the west of the parish. Its settlement consisted of farmlands divided by the land surveyors' grid (approx. 2km) established in 1845.

The scenario for Broadmeadows' development from being a township to becoming a suburb follows the relocation of its town centre across the grid towards the east to realign itself with the interstate railway and vehicular infrastructure. This movement also follows the aerial overlay accommodating flight paths for Melbourne international airport spanning from west to east across the parish. (see Fig. 106)

The case study area includes four grids to the north east of the current town centre by the council. The interstitial fabric is defined by the primary vehicular infrastructure of Pascoe Vale Road, Hume Highway, Barry Road and Camp Road including the two railway lines of Upfield and Broadmeadows within. (Fig. 112)

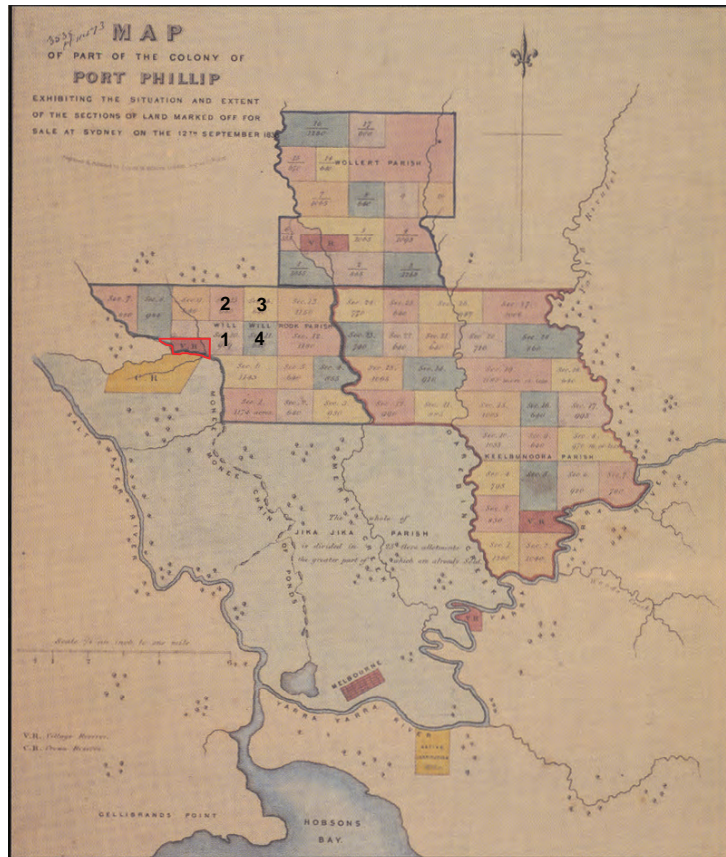


Figure 112. Parish of Broadmeadows with the location of the old township (in red)

## b). LAND SURVEYORS' GRID (approx. 2km)

My areas of interest lie in the grid next to the current town centre located inbetween Broadmeadows railway line and Merlynston creek. This grid contains the residential districts of Dallas and Broadmeadows with the intrusion of light-weight industrial fabric cutting across in the middle (grid 1). The area is divided by an arterial road, Rigall Street with a major roundabout separating the residential fabric of Dallas from the light-industrial zone. (Fig. 113)

The grid next to it across the creek is a Safeway distribution centre and the industrial district of Campbellfield (grid 2). Further north-east to the town centre is the continuation of Dallas, meeting with the main arterial road, (Barry Street) which is the only point of connection across to the west of the railway line after Broadmeadows Station. (grid 3) To the north of the arterial road is the residential district of Coolaroo within the same grid. The residential district of Dallas expands further to the east at this point across the creek to include the relocated Ford factories. (grid 4)

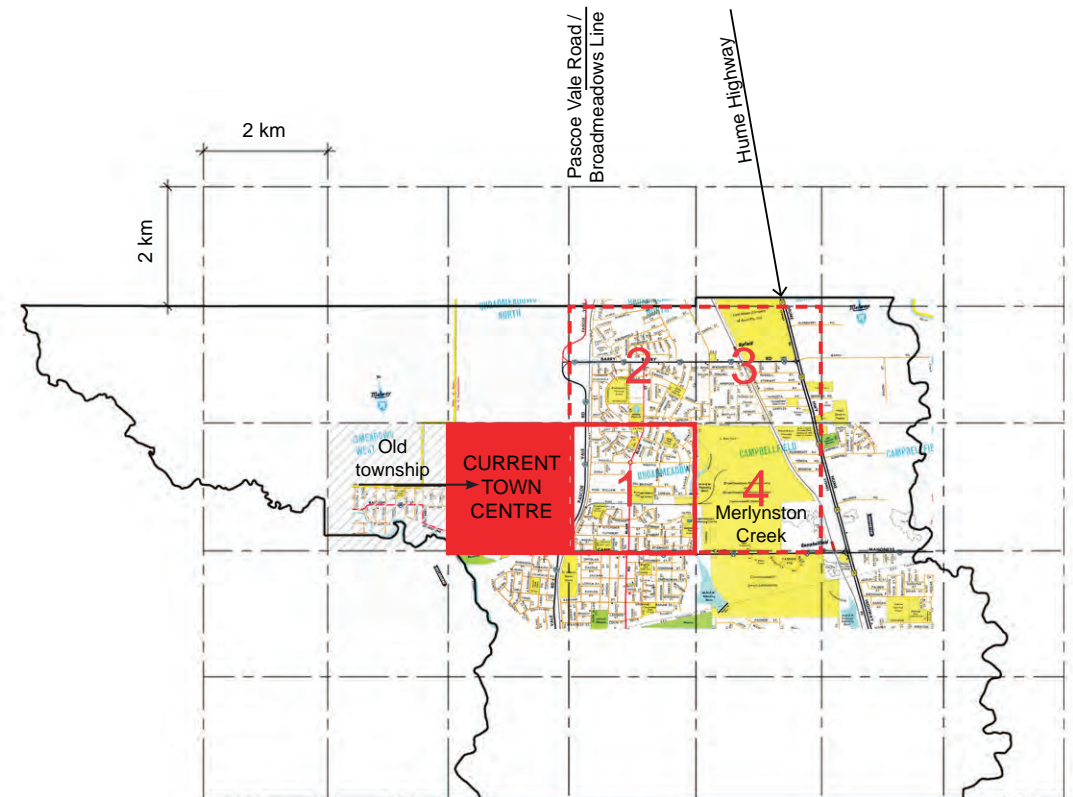


Figure 113. Overlay of the land surveyors' grid onto Broadmeadows Parish showing the movement of the old township to the proposed location of the town centre by the council.

### c). NON-DIAGONAL INFRASTRUCTURE

The key aspects of the patchwork formation of development at Broadmeadows are the identification of sites that play a critical role in framing the territories within the planned zones, and desire lines informed by urban structures in addition to the town centre.

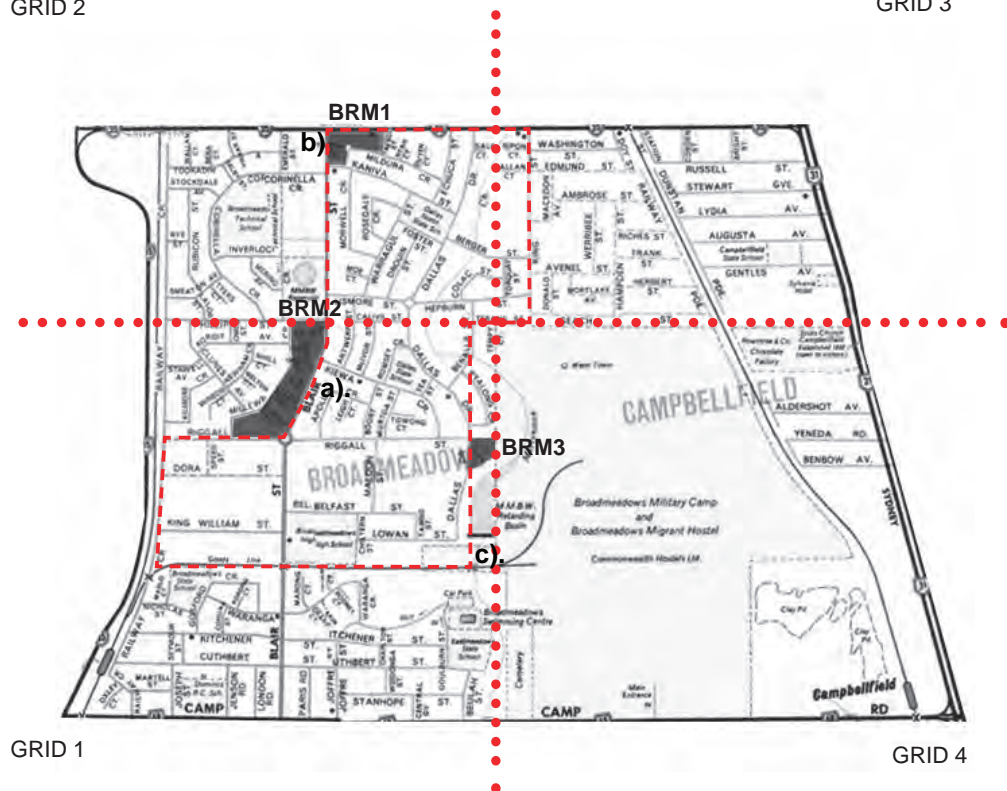
These territories are in turn implied in the physical change in angle of the main arterial road (*Fig. 114a*) defined by Blair Street starting at the major roundabout between the industrial and residential zone (grid 1), forming a corner in meeting with Barry Street in the north (*Fig. 114b*), returning slightly off the grid between 2 and 3 along Dallas Drive due south and running parallel with Rigall Street is King and William Streets to complete the vehicular 'loop' around the perimeter of the light-industrial zone (*Fig. 114c*).

Each of the selected SLOAP are attached to either primary infrastructure or influenced by some form of a secondary infrastructure following zonal overlays. The selected SLOAP are regarded as important locations for manifesting:

- the impact of the creek upon the suburban fabric (i.e. Merlynston Creek)
- neighbourhood circuits formed by local street networks (i.e. arterial roads in dashed red)

GRID 2

GRID 3



GRID 1

GRID 4

### d). URBAN STRUCTURE

The term 'acupuncture' stems from the strategic response of distributing the notion of the centre across the rest of the suburban fabric. (*Fig. 115*) The strategy demonstrates my intent and the critique on the centrality allocated to the proposed town centre by the council. This is in contrast to the council's proposed centralised town centre with:

- high-architecture which is based on the ideal development using large allocated land plots
- high density pressure on the centre which will put heavier emphasis on vehicular transport
- further requirement for land to accommodate vehicular infrastructure associated with that kind of development.

The agenda behind the proposed dispersed local intervention is to support:

1. medium density development to promote and support both the necessary diversification and densification which I believe to be required in these suburbs
2. an increase in the number of focal points in delivering community infrastructure to support the existing suburban fabric.

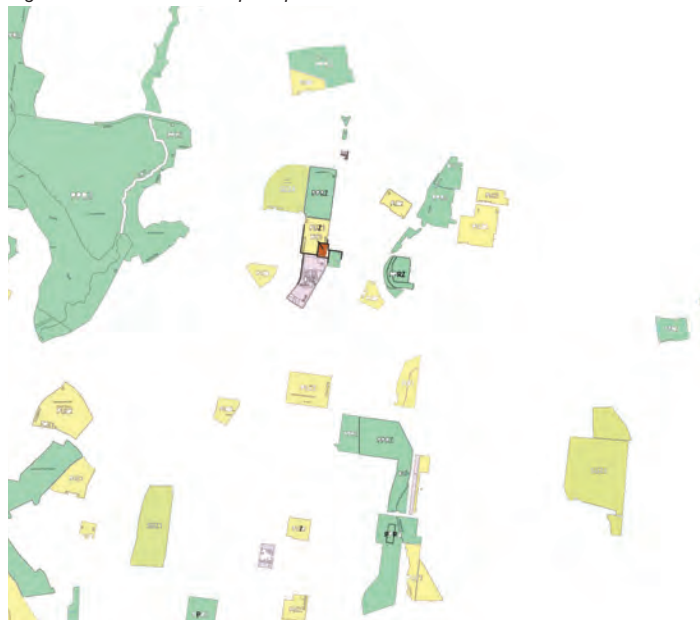


Current  
Town Centre

Figure 115. Diagram of the arterial 'loop' and the geometric orientation to the urban structure (dashed in red) to which the selected SLOAP are attached as sites.



Figure 116. Distribution of open space in Broadmeadows



Spaces Left-Over After Planning are located at potential points of introducing mixed use developments to suburban fabric with;

**BRM 1 Inverted Corner**

Police Station / Post Office

The site is at the end of an arterial loop forming a T-junction between a local school, a maternity clinic and a green reserve. It has the characteristics of an 'inverted corner', potential for addressing the informal and formal relationship between the territories found within the different zones.

**BRM 2 Asymmetry**

Residential Complex + Mixed Use /  
Small Office / Home Office (S.O.H.O)

The block to which the plot belongs accommodates axial as well as directional changes implied by the influence of infrastructure. It falls under the categorisation of a local commercial zone as an outgrowth from the industrial zone. The frontage to the site forms an edge between the residential fabric and industrial zone interrupted by a main road angling at a nearby roundabout

**BRM 3 Pivoting**

Recreational centre + Golfing Driving Range

Located at the termination of the industrial zone in meeting with the flood plain adjacent to residential fabric, the SLOAP is both considered a buffer and sub-destination for the periphery.

Figure 117. Dispersion of focal points as secondary nodes to the town centre.

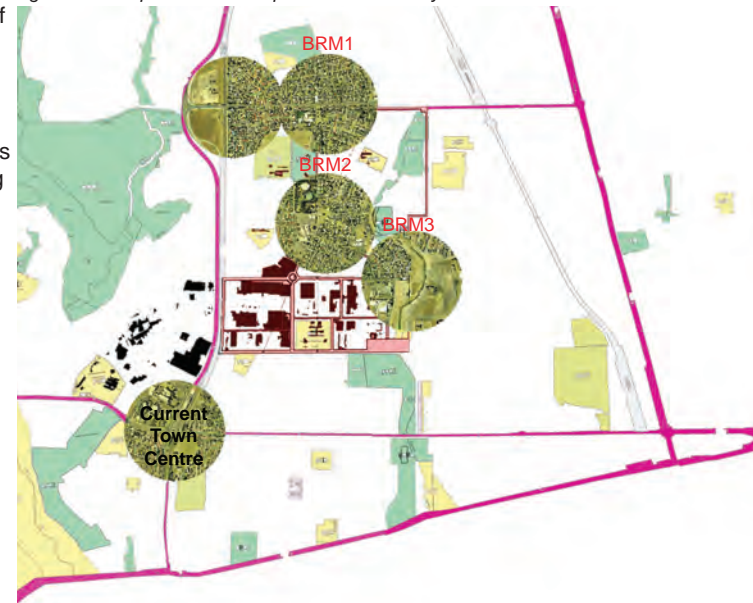


Figure 118. AERIAL VIEW OF THE TOWN CENTRE: with the proposed dispersion of focal points (secondary nodes) to peripheral suburban areas reflecting the 'acupuntural' treatment.





Figure 119. Framework of primary infrastructure and geometric abstraction for identifying SLOAP

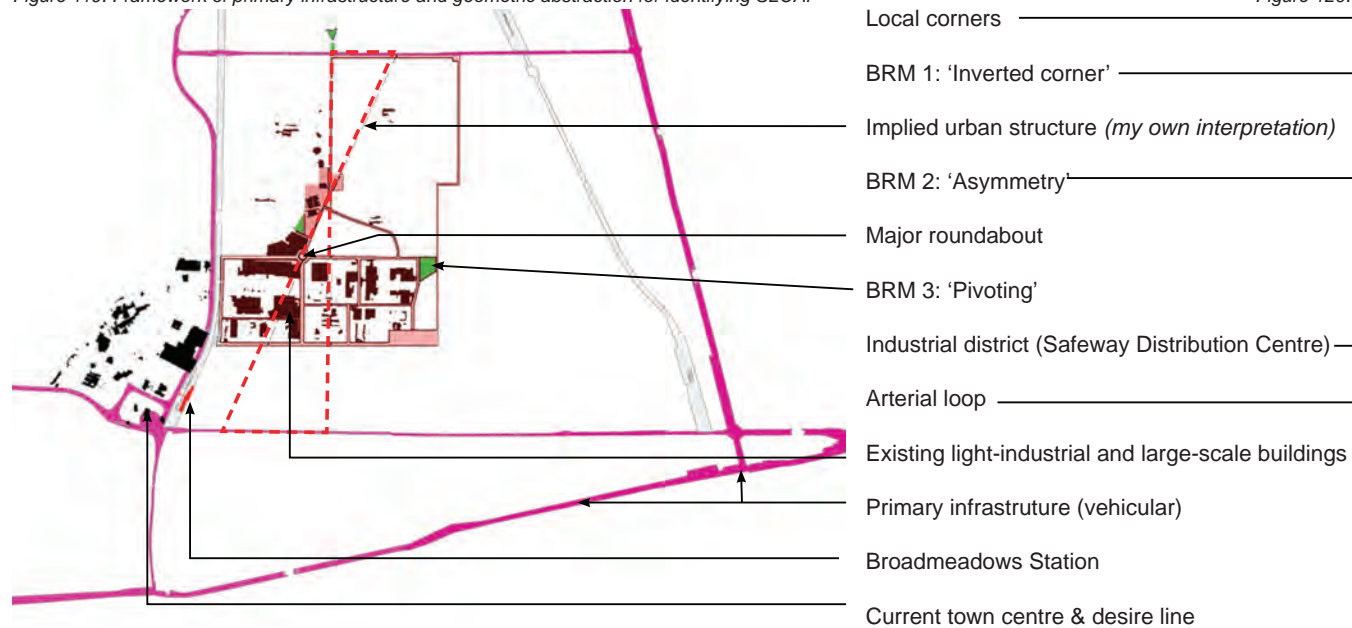


Figure 120. Patchwork formation to the suburban fabric with desire lines and implied implied urban axis.

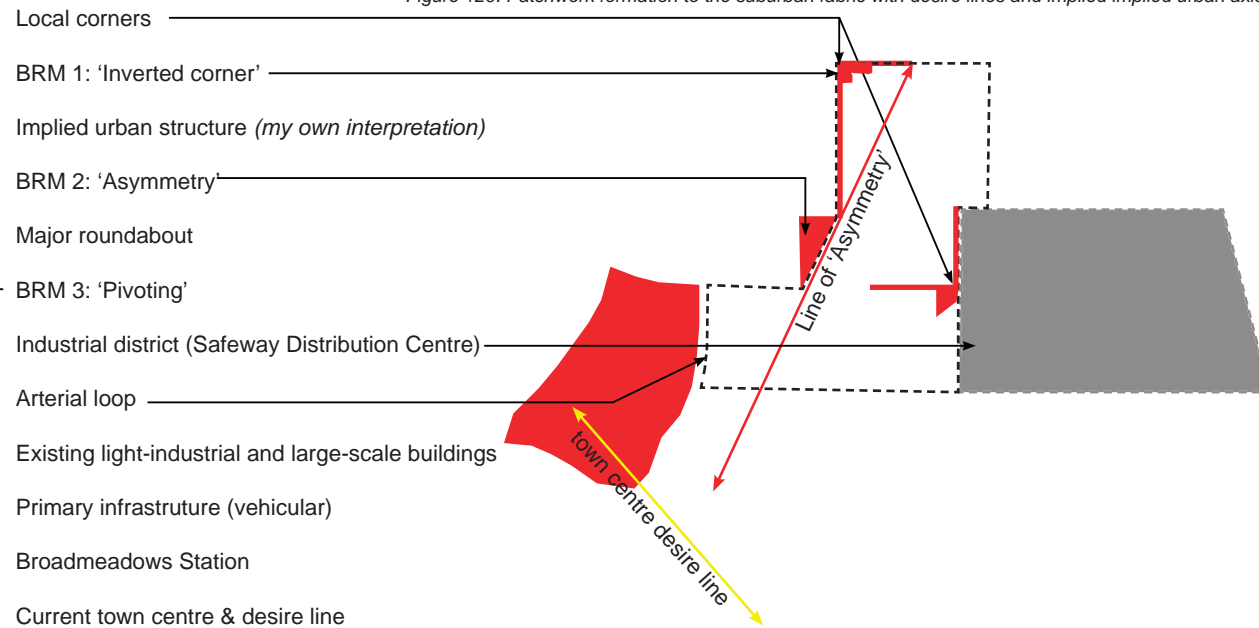


Figure 121. AERIAL VIEW OF THE LARGE-SCALE & INSTITUTIONAL BUILDINGS: with the outgrowth of the light-industrial area interrupting the residential fabric. The proposed dispersion of secondary nodes follows an implied 'diagonal' caused by this pattern of growth along with the development of primary infrastructure to which the selected SLOAP are attached

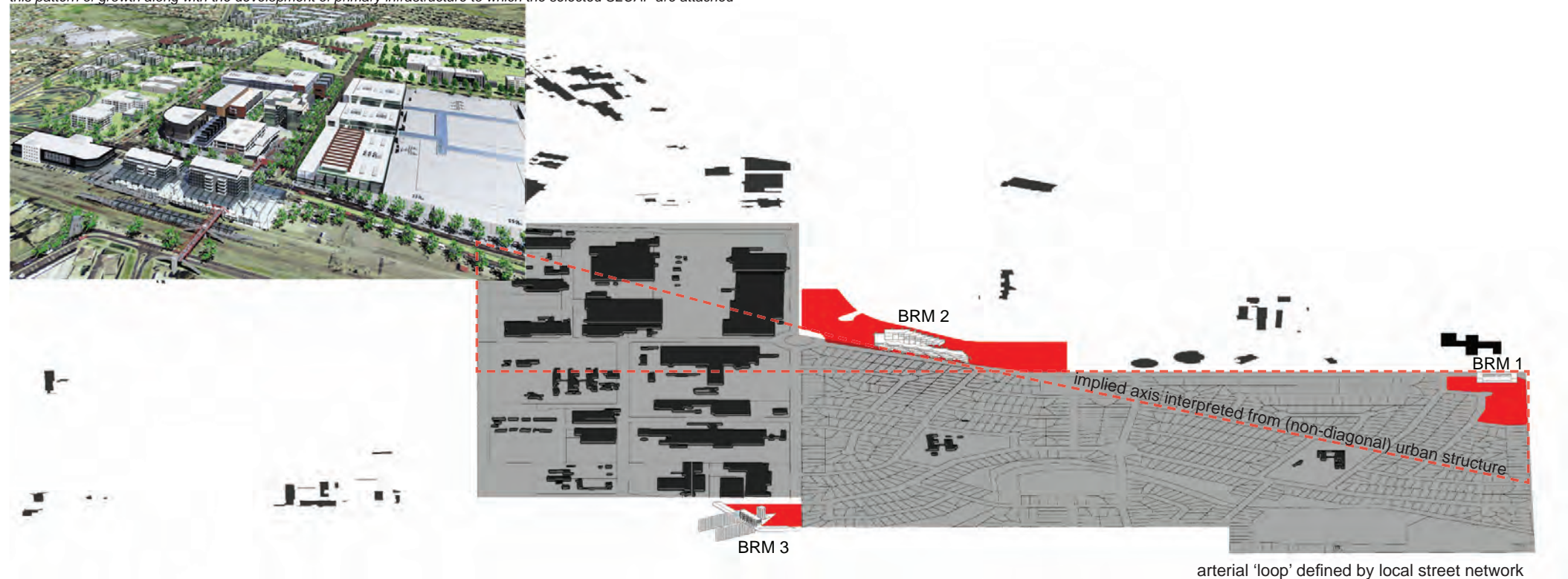
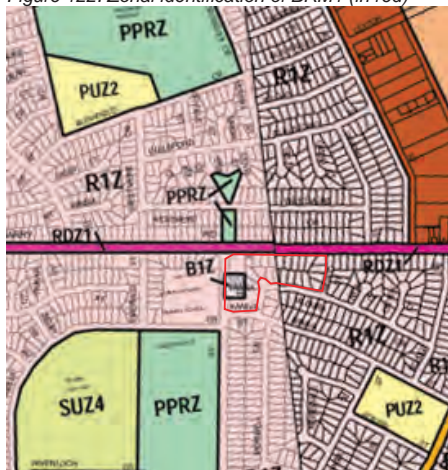




Figure 122. Zonal identification of BRM1 (in red)



+

### BRM 1: PROPOSED POST OFFICE / POLICE STATION

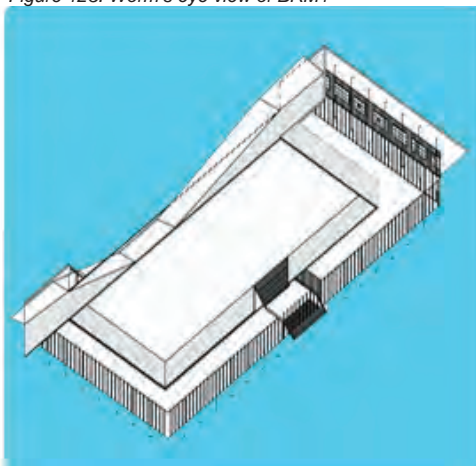
Currently the site is used as part of the local network for pedestrian circulation. It is used as a buffer from the local primary school to the west of Blair Street and across from the residential fabric of Coolaroo.

My main idea behind the use of SLOAP is to emphasise the civic significance of the junction. The treatment involves the isolation of the corner plot as an island to enable the clear separation of vehicular and pedestrian circulation. This is achieved through inverting the current relationship of its plot to the larger block (from negative to positive).

The T- junction is given a landmark significance by introducing civic programs (police station and post office) as an outpost facility for serving the local neighbourhood. With the centralisation of amenities to town centre and post offices moving into shopping malls, as in the case with Broadmeadows town centre, the engagement of local residents with other neighbourhood civic facilities such as fire / police station become more distant.

Therefore the main function of the police station works in sub-tenancy with the proposed post-office as an additional program to boost its civic presence and engagement using the notion of a 'civic-combo' building.

Figure 123. Worm's eye view of BRM1



### 'Inverted Corner'

The aim of the intervention is to intensify the current use of SLOAP by emphasising its difference to the mostly-residential block. The design intent is to form a contiguous relationship with the existing local maternity clinic across the main road (Barry Road) and the local primary school opposite (Blair Street), to make an integrated precinct. (Fig. 122)

The idea of the inverted corner is achieved through the introduction of a service lane abutting the residential neighbourhood (R.O.W) to detach itself from the block as an independent plot in itself. This gives the built fabric extra setback from the adjacent single dwellings on the east. The service lane is also intended as a bypass from the main traffic (only for post delivery vehicles), eventually ending at the back of the proposed building at the local reserve and public parking area.

=

Figure 124. Street plan with the proposed location of BRM1



### T - junction

The proposed ground floor plan accommodates a local post office and a police station on the upper floor. The upper floor plan follows the C-configuration accommodating open grounds with docking area in the basement below the elevated court. (Fig. 123)

The elevated court acts as a hidden buffer for pedestrians accessed through a grand staircase functioning as a gateway to the building. The proposed building is inspired by 60s modernist type commercial buildings and has a carpark below and colonnaded ground floor.

The proposed building enables access for pedestrians, maintaining its existing use. The elevated court also accommodates a community basketball court, encouraging further social interaction and introduces the notion of 'shared' use with police exercise grounds.

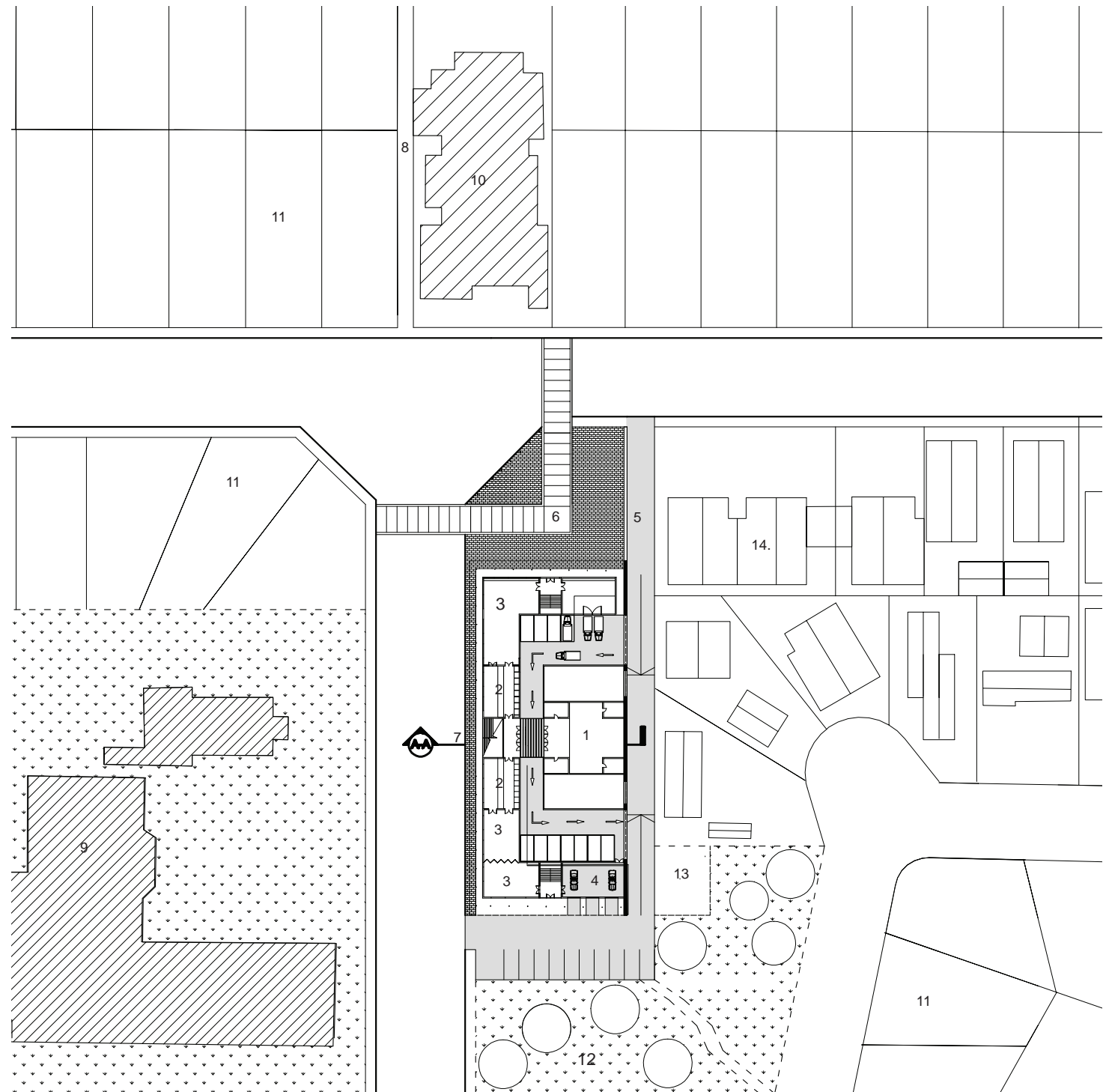
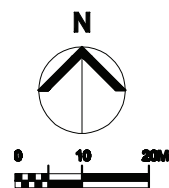


Figure 125. Existing green reserve and informal carpark facing arterial road (Blair Street) with a bus stop.

Figure 126. PROPOSED GROUND FLOOR PLAN

LEGEND:

1. Docking / Staff facilities
2. Post shop
3. Offices and admin.
4. Police garages
5. Proposed Right-of-way (R.O.W)
6. Proposed school crossing
7. Existing bus stop
8. Existing side lane
9. Existing primary school
10. Existing local maternal clinic
11. Existing single-family dwellings
12. Existing green reserve
13. Existing playground
14. Existing local neighbourhood stores & milk bars





### C - Configuration

The main roads (Blair Street and Barry Road) form part of the neighbourhood arterial 'loop' which is the only connection point to the other side of Broadmeadows railway line in the west after crossing at Broadmeadows Station.

The SLOAP is a regular-shaped plot and the proposed medium-scale building adds to the secondary grain of the surrounding neighbourhood, making the corner an institutional precinct within the residential fabric. The plot ratio is allocated as twice that of the residential sites.

The proposed civic building terminates the boundary of the residential fabric marking an infrastructural 'framework' to supplement the hierarchy of the local street network. After crossing at the T-junction, the local clinic can be accessed through a side lane which eventually leads to a green wedge further north in the residential block beyond. (also refer to Fig. 122)

#### LEGEND:

1. Public toilets (Male / Female)
2. Basketball court / police grounds
3. Police station
4. Cafeteria
5. Grand stairs
6. Office and admin. (for police station)
7. Meeting room
8. Colonnade
9. Island kerb
10. Drop-off apron

Figure 127. PROPOSED BLOCK PLAN

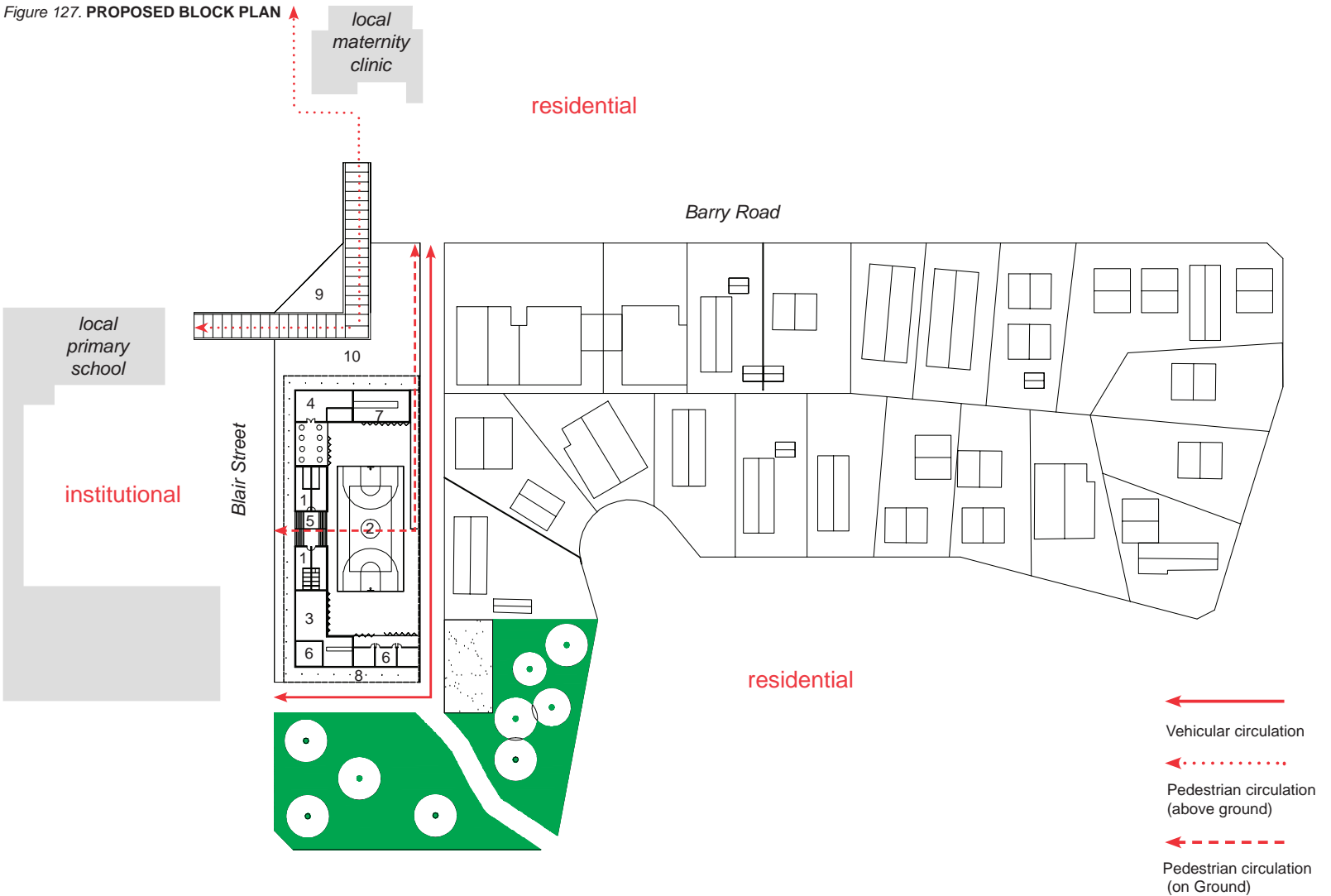


Figure 128. EXISTING VIEW OF THE T-JUNCTION: with the local maternity clinic on the left and the informal reserve on the right. Opposite is the primary school across the main arterial road.



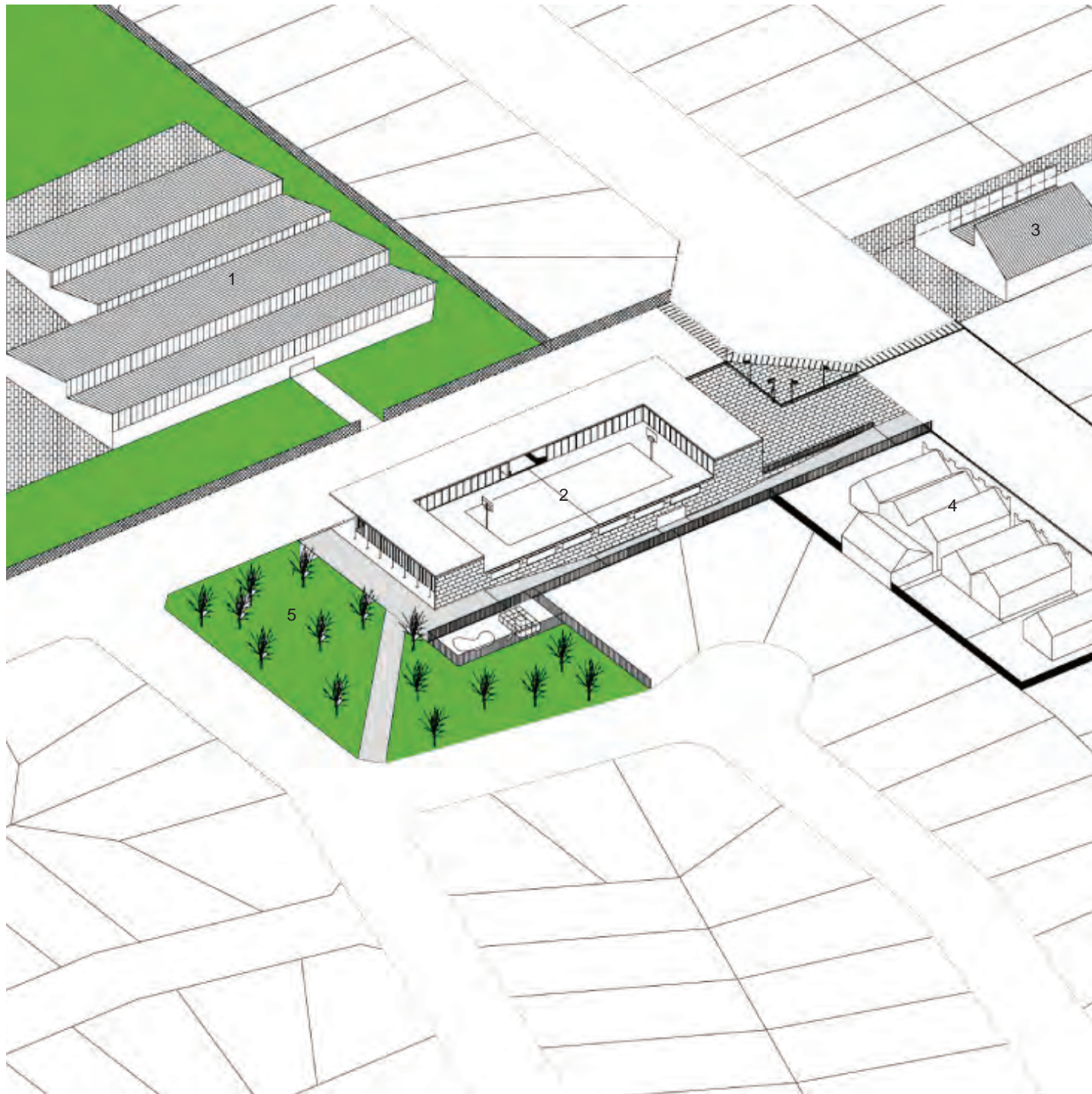


Figure 129. **AXONOMETRIC VIEW (BRM 1)** of the elevated court showing the scale of the infill in relation to the school compound opposite and the adjoining terrace housing. The infill that mediates the intermediate scale is located at the elevated level, where the police exercise ground can also be used as a basketball court for the community. The elevated court leads to a grand staircase opposite the local primary school providing shelter and waiting area for the bus stop in front. The elevated court can be accessed through a ramp running along the service lane edge.

1. Existing local primary school
2. Proposed police station / post office
3. Existing local maternal clinic
4. Neighbourhood stores / milkbars
5. Existing reserve



Figure 130. **MODEL MONTAGE (BRM 1)** of the proposed building in its neighbourhood context showing the grain of the residential fabric in comparison. The view shows the elevation where the local primary school opposite faces the grand staircase which leads to the court on the upper floor. The local maternity clinic at the T-junction is also accessed via a wedge-shaped green beyond in the residential district of Coolaroo.

- a). Green reserve wedge
- b). Local maternal clinic
- c). Adjacent neighbourhood stores / milk bars
- d). Local primary school
- e). Proposed police station (above) / post-office (below)

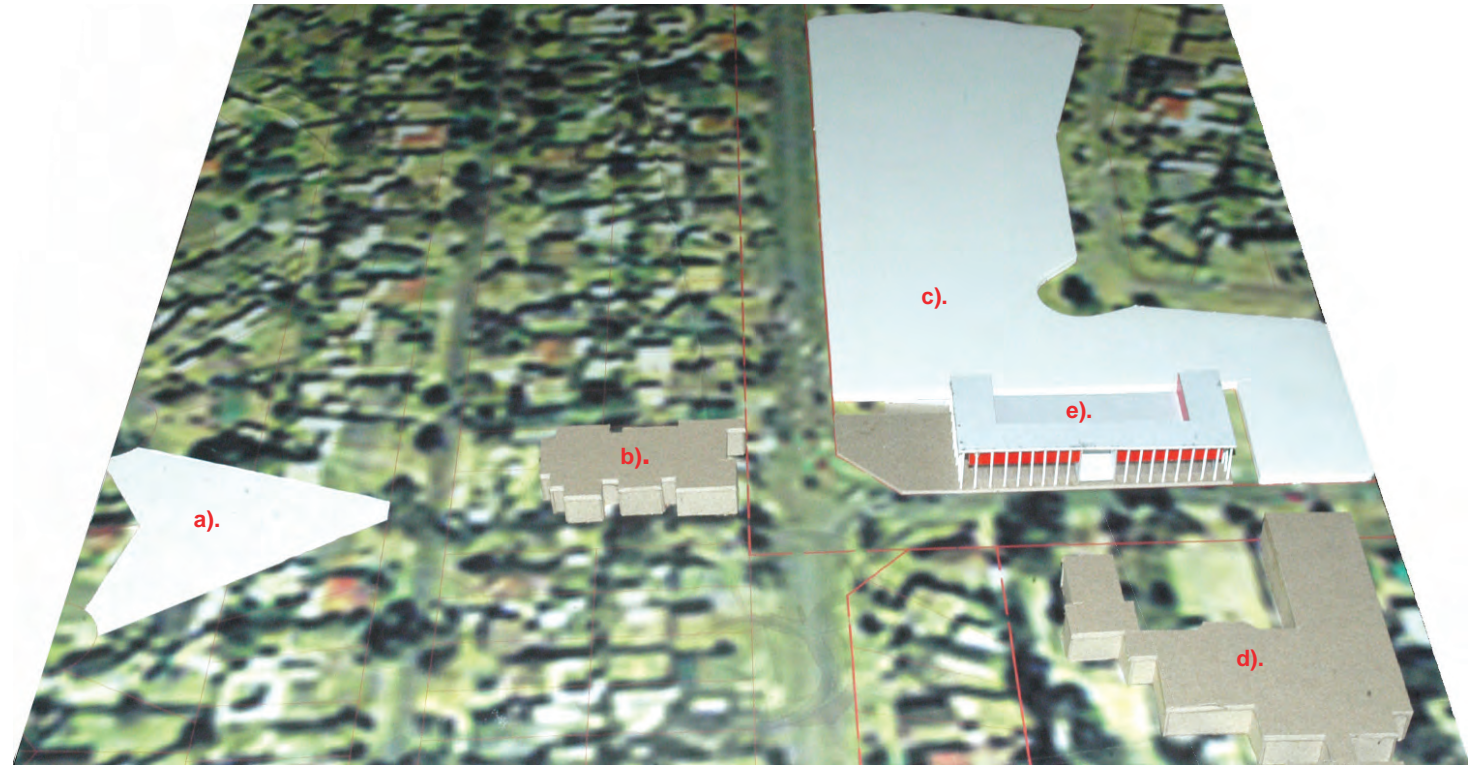


Figure 131. **PROPOSED VIEW OF THE GRAND STAIRCASE** leading up to the upper court landing with the existing bus stop in front below the local primary school.



Figure 132. **SECTION A-A** showing proposed thoroughfare via elevated court. This space can be used for basketball and as an exercise ground for police crew. The elevated court is accessed via a ramp on the east edge and also by a grand staircase in front of the primary school. The main staircase ends at the bus stop in the west front which also provides a sheltered area people waiting and meeting. The elevated court is open to the sky and set back from the residential fabric.

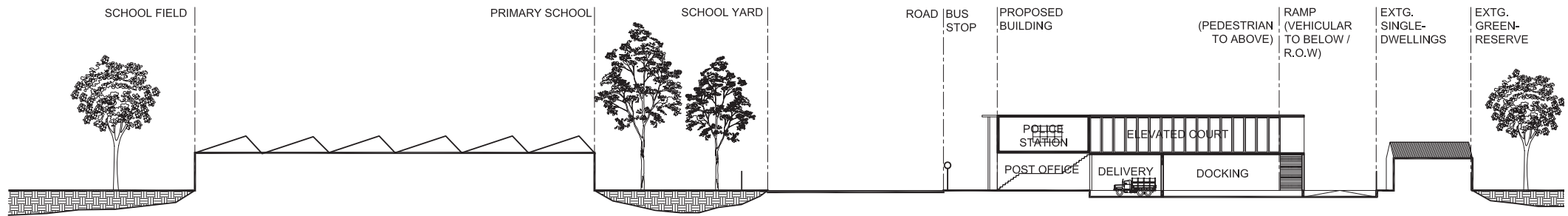


Figure 133. **PROPOSED VIEW OF THE SCHOOL CROSSING** leading to the proposed building. It provides a shortcut to the bus stop in front of the school. The upper floor facade is tiled to represent the iconic mosaic of the Victoria Police logo. The canopy is rendered in red, advertising the post office. Overall, the facade refers to the suburban language of civic buildings - small icons within the public realm. The extended canopy is a reference to the modernist technique, giving identity to the built form by emphasising the corner. The generous setback from the corner of both frontages invites parents to drop their children off by car for the primary school opposite.

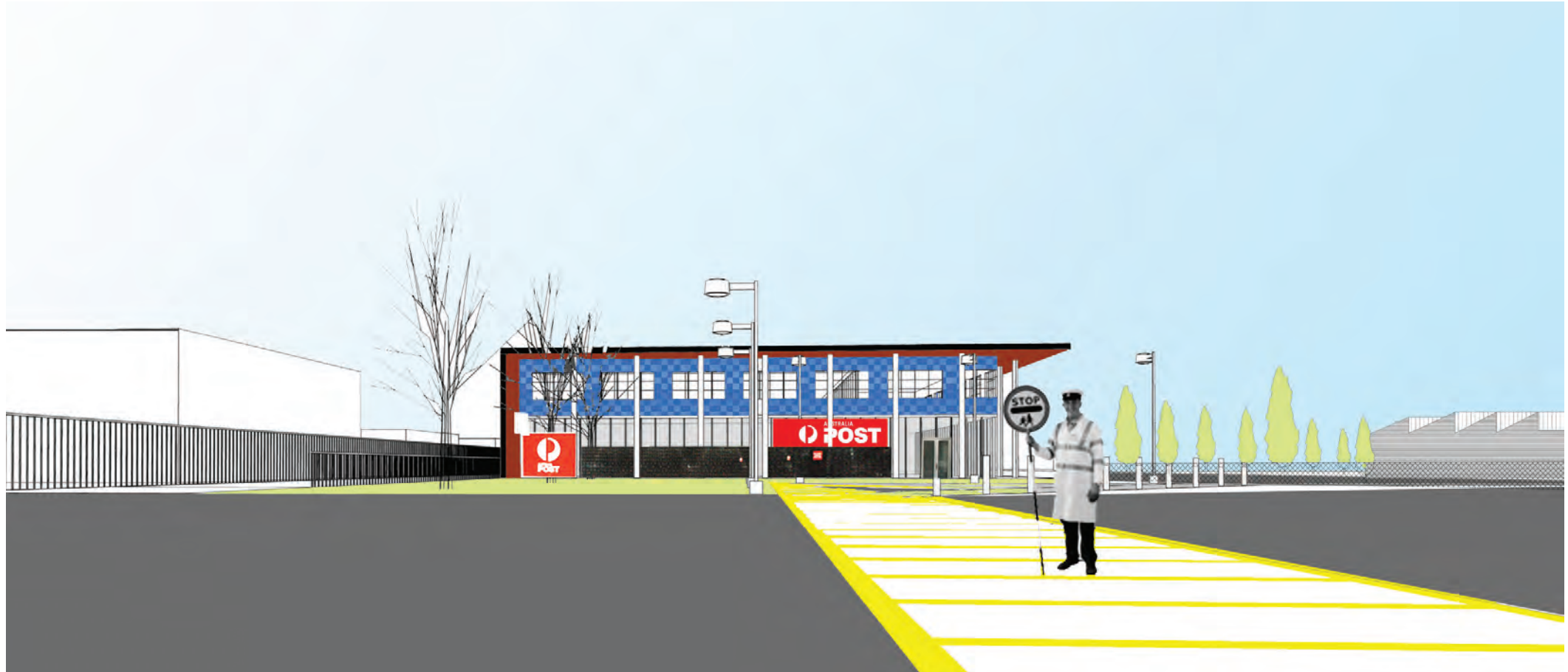
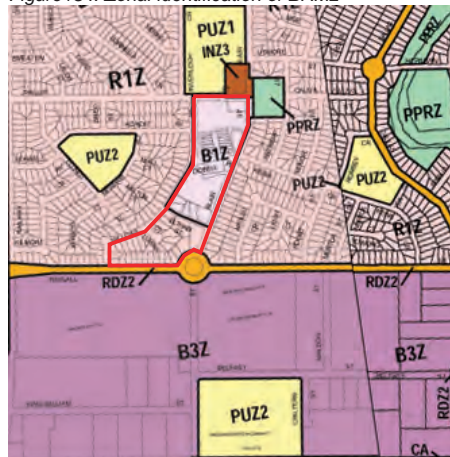




Figure134. Zonal identification of BRM2



## BRM 2: RESIDENTIAL COMPLEX WITH CARPARK TOWER

The residential district of Dallas is separated by an arterial road (*Blair Street*) which changes in axis at the roundabout junction of the industrial zone (Riggall Street) and the residential fabric south of the local shopping centre and a supermarket (Dobell Place).

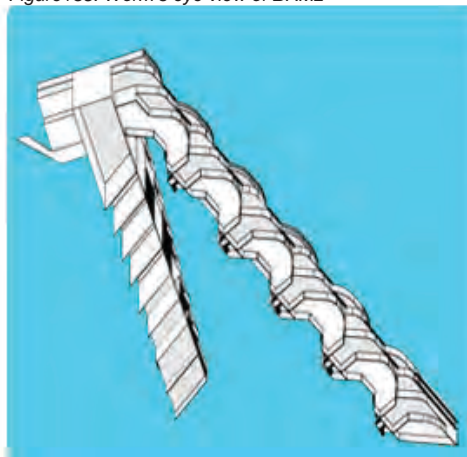
The site is currently used as a large open carpark supplementing the formalised carpark to the north of the local shopping centre.

The local shopping centre at Dobell Place is an introverted mall type which backs on to the main street. Its frontages are defined by a series of island kerbs and service lanes. Opposite the road is medium density housing from the 60s (see Fig. 140) at the beginning of the change in axial direction of the 'dog-legged' block.

The block (B1Z) acts as a buffer between two residential zones interrupted by the main street (Blair Street) and also accommodates the impact of the implied local axis caused by the directional change in vehicular infrastructure. (Fig. 134 in red)

The main idea behind the V-configuration for the proposed footprint of the residential complex is to divide this relatively large block in two.

Figure135. Worm's eye view of BRM2



## 'Asymmetry'

The strategy is to employ an axial relationship implied on the block to encourage mixed-use development, taking advantage of the resulting asymmetry created by the division of the block. This reinforces the existing implied axis (Fig. 134 dashed in red) towards the main roundabout at the industrial zone.

The proposed V-configuration thus accommodates the directional change in the local street and takes advantage of opportunities in incorporating local vistas towards the Ericson' building in the light-industrial area.

The proposed residential complex mediates from a tall warehouse-type residential wing with a carpark tower, buffered by a series of open spaces in the west (facing the existing single dwellings) to a small office / home office wing consisting of a row housing typology to edge the main street. (Fig. 135)

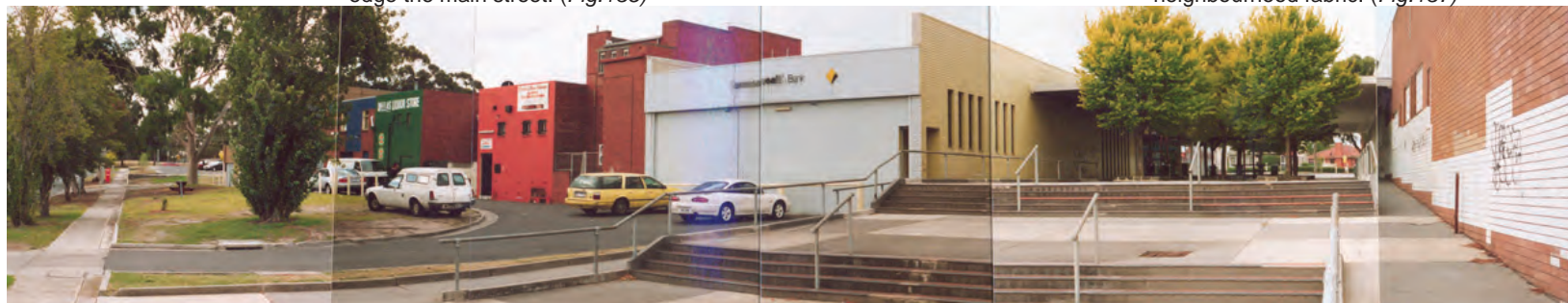
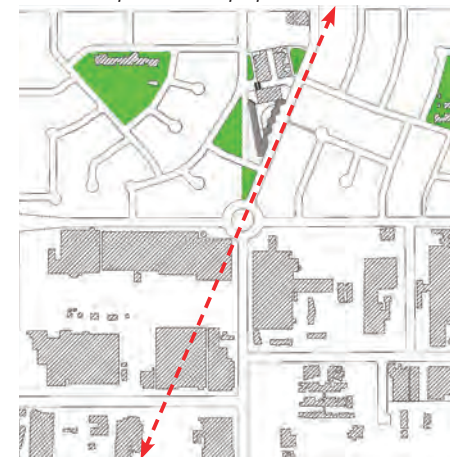


Figure 137. **EXISTING VIEW:** of the informal back to Dobell Place (local point of commerce) in the west facing the residential fabric.

Figure136. Street plan with the proposed location of BRM 2



## 'Dog-legged' Block

The scale of the proposed building is in response to the landmark significance of the relatively tall Ericson building in the industrial zone beyond. This is a local landmark visible from the existing open-air carpark attached to the supermarket.

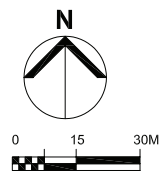
The shape of the proposed complex is a result of the change in direction of the main street (Blair Street) and accommodates the implied axis of the surveyors' grid to articulate the differences within the same residential zone and the local commercial zone.

The proposed open spaces act as a buffer to the existing single dwellings, especially the ones on the west. Most of these do not have front fences, hence the landscaping becomes an informal extension to their front yards as a common ground within the neighbourhood fabric. (Fig. 137)

Figure 138. PROPOSED GROUND FLOOR PLAN

LEGEND:

- 1 - 6. Proposed warehouse residence units
7. Proposed court
8. Proposed landscaping
9. Proposed Small Office Home Office (SOHO)
10. Existing school
11. Existing single-family dwellings
12. Existing car park
13. Existing take-away shop
14. Existing local kindergarden
15. Existing row housing
16. Existing roundabout
17. Existing island kerbs
18. Existing local shops
19. Existing supermarket
20. Existing pedestrian mall





# V - Configuration

The ground floor of the *SOHO* wing accommodates retail spaces with pedestrian access to the inner court. The tower wing consists of a series of residential blocks with public corridors inbetween. The ground floor plan ensures permeability of the block which is accessed via an internal street and a proposed side lane buffered by open space to the west.

The internal court guides the pedestrians to the existing supermarket and also provides access to the carpark tower shared in the warehouse-type residential wing. The wedge encloses an atrium to allow light for the greenery within and also passive ventilation to occur. The *SOHO* wing contains a series of light wells and the tower wing has cascading terraces facing north.

## LEGEND:

1. Existing corner and take-away shops
2. Existing local mall ('introverted')
3. Existing supermarket
4. Proposed inner atrium with internal street
5. Warehouse-type residential wing
6. Small Office / Home Office (*SOHO* wing)
7. Proposed reserve (with side-lane)
8. Neighbouring single-family homes
9. Existing 1960s row-type housing

Figure 139. PROPOSED BLOCK PLAN

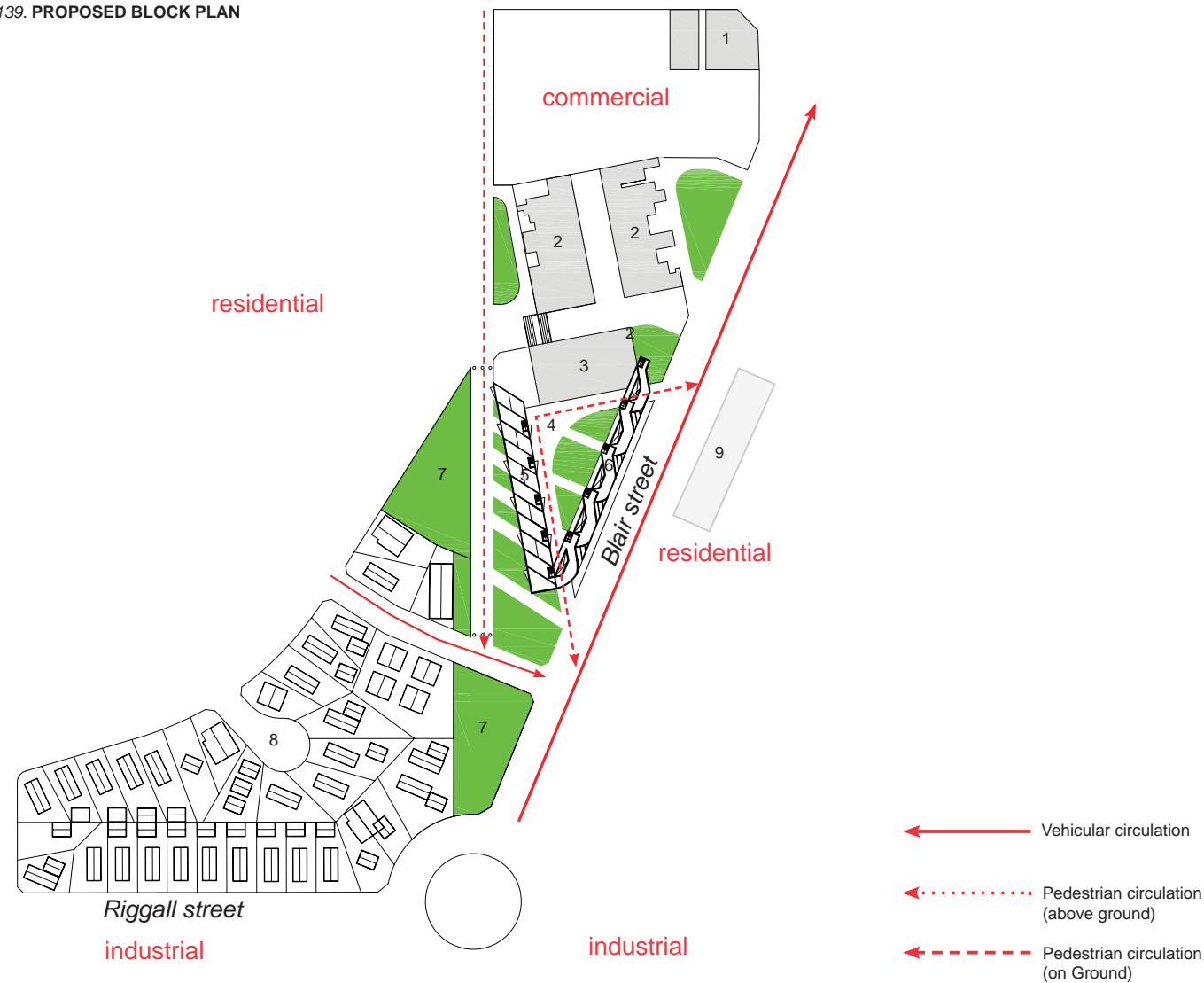


Figure 140. EXISTING VIEW: the arterial road accommodating the axis change at the roundabout. The landmark Ericson building is visible beyond and opposite is an example of existing row-type housing.



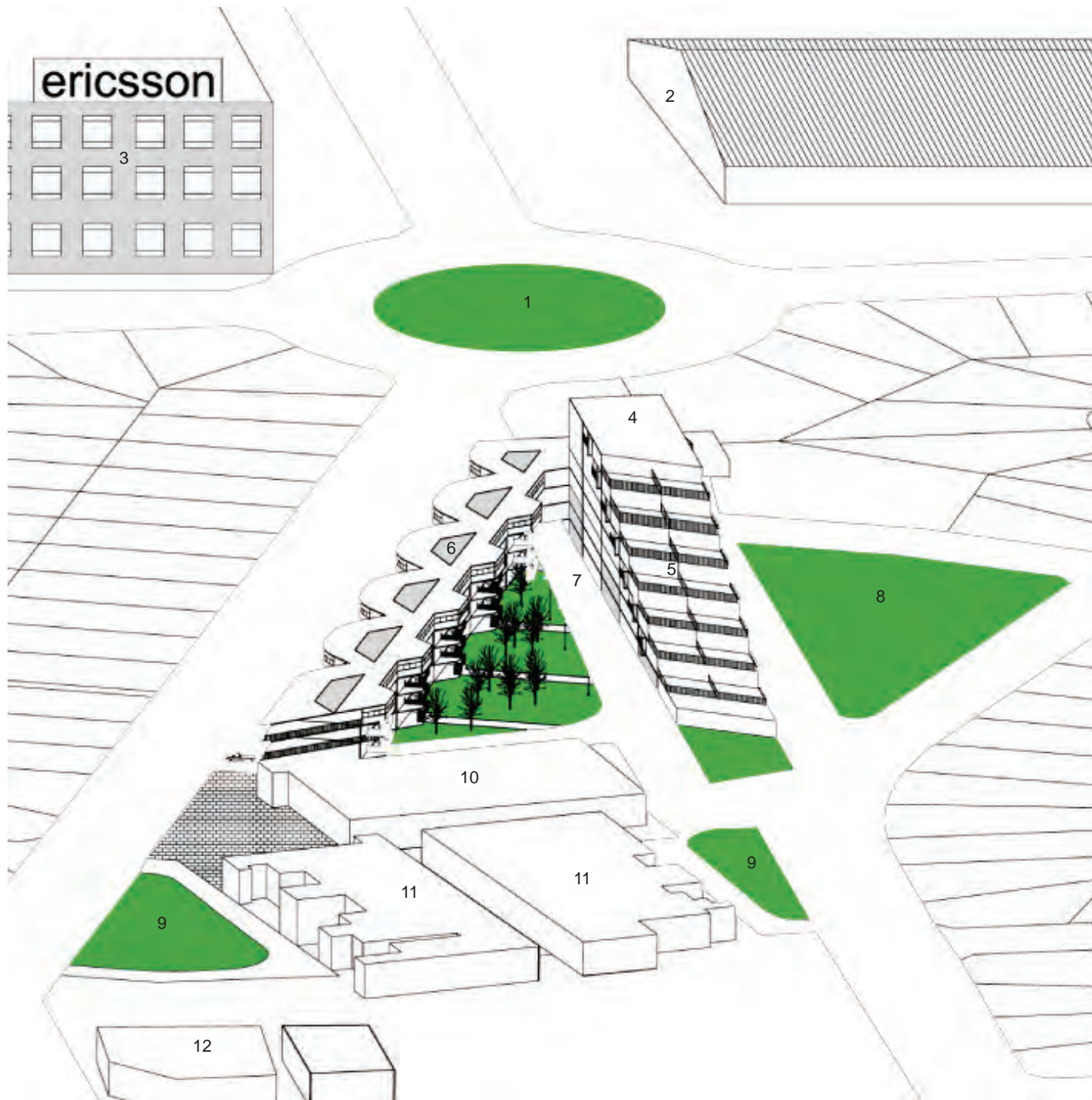


Figure 141. **AXONOMETRIC VIEW (BRM 2)** showing the court wedged between the two proposed wings of residential development. The footprint shows the separation of the dog-legged block into asymmetrical plots with one built up and the other left as designated open space, addressing the informal front to the residential fabric it faces.

1. Major roundabout
2. Existing light-industrial sheds
3. Ericsson headquarters
4. Proposed carpark tower
5. Proposed terraced housing
6. Small office / home office (S.O.H.O) / light-well
7. Private internal road
8. Proposed green reserve with service lane
9. Existing island kerbs
10. Existing supermarket
11. Existing local shopping mall
12. Existing corner / take-away shop



Figure 142. **AERIAL VIEW** of the model showing the proposed height of the two wings in relation to the surrounding single-family dwellings. The site currently consists of a mall cutting transversely, connecting a local street from the east of the residential fabric to the west. The proposed planning of the residential complex incorporates a private road in the north-south direction.

- a). Corner take-away shop
- b). Local mall / supermarket
- c). Open-air car park to existing supermarket
- d). Proposed green reserve / (existing abandoned plots)
- e). Proposed residential complex with car park tower / small office home office (SOHO)

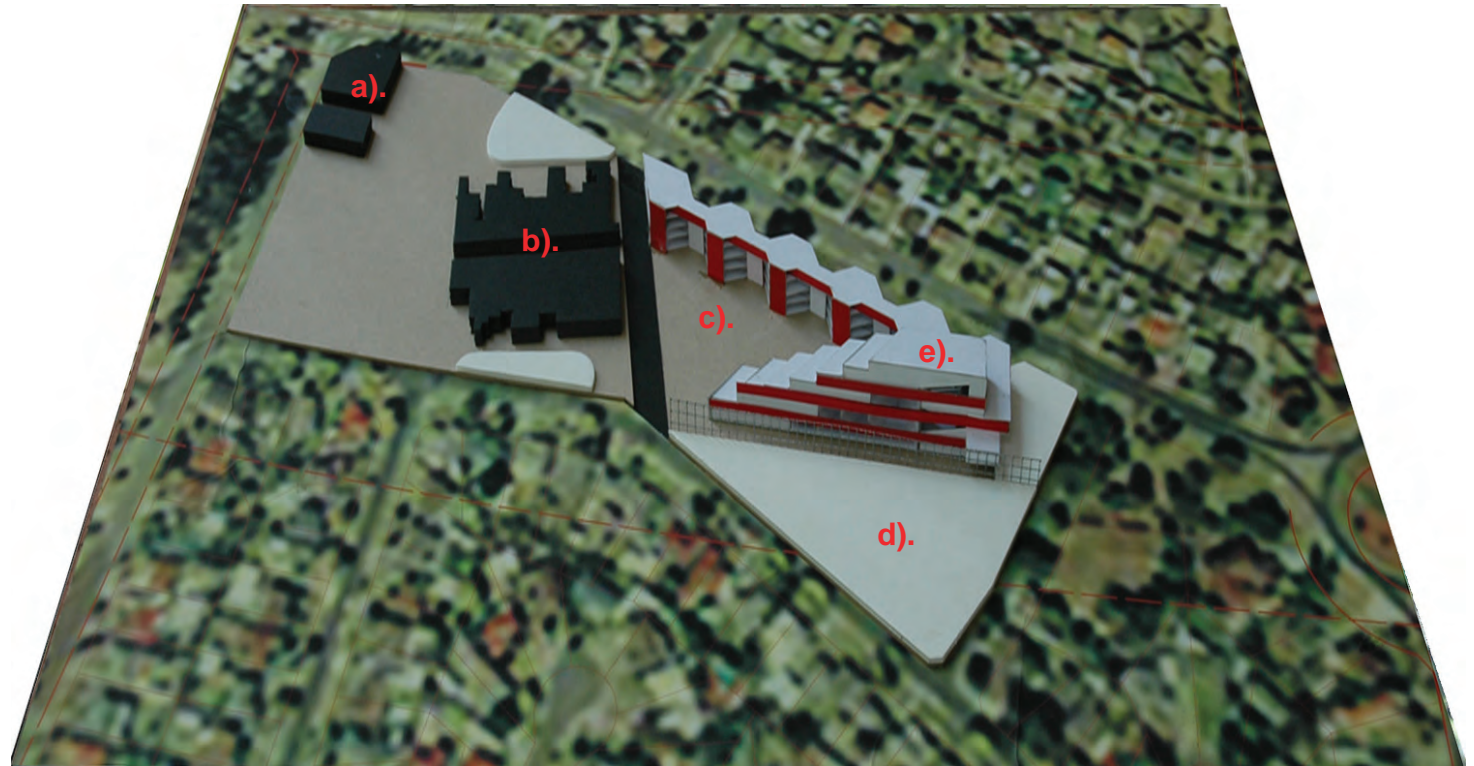


Figure 143. **PROPOSED ELEVATION TO THE SOHO WING (BRM 2)** facing the main arterial road (Blair Street) looking back at the major roundabout junction between the residential and industrial zone with the landmark Ericsson building beyond.



Figure 144. **SECTION B-B:** looking from the court showing the taller wing with the carpark tower giving landmark status echoing the Ericsson office tower beyond. The court within is landscaped and provides more open space for light and pedestrian thoroughfares.

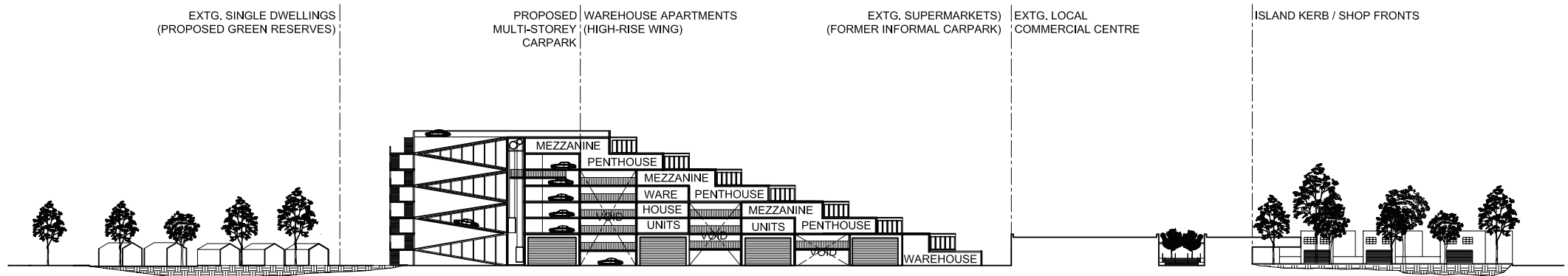


Figure 145. **PROPOSED VIEW OF THE INNER ATRIUM:** leading to the existing supermarket beyond. On right, Small Office / Home Office wing, and on the left the warehouse type residences. The main elements in the architecture are stairs that act as an informal vantage point for views onto the lawn area. The cantilevered penthouse level on the SOHO wing also provides shelter for pedestrians. The light traffic routes are for residents' access and for delivery to the local shopping centre. The Introduction of more frontages facing into the atrium also increases public surveillance and safety.

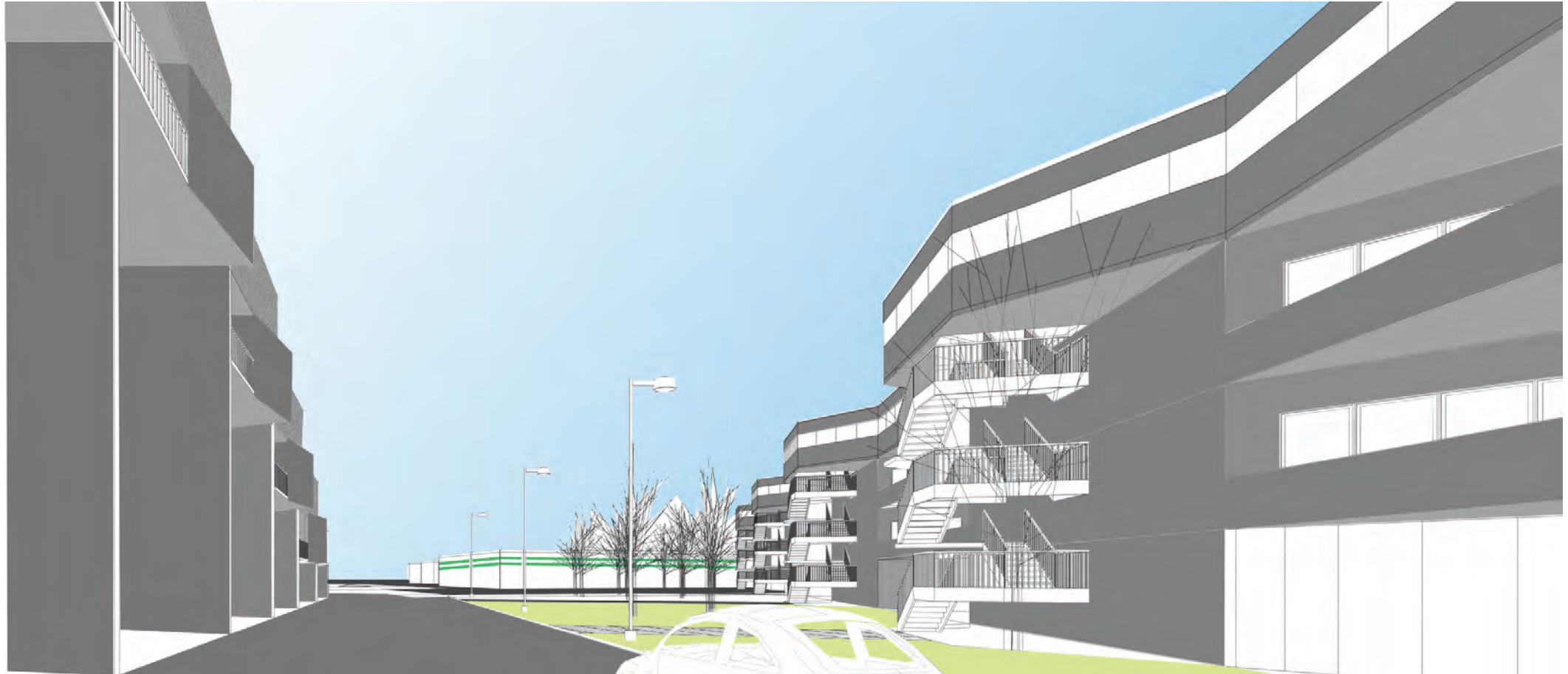
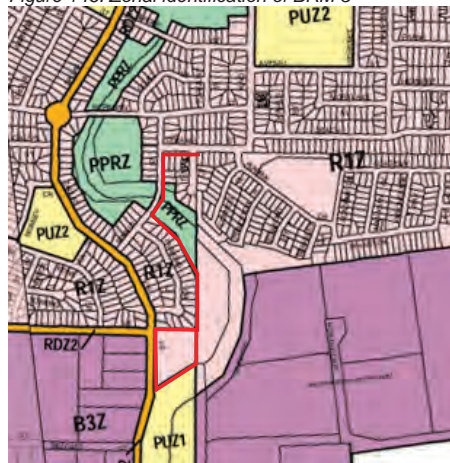




Figure 146. Zonal identification of BRM 3



### BRM 3: SPORTS AND RECREATIONAL CENTRE

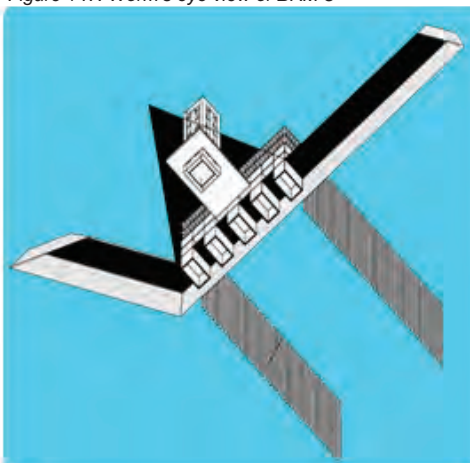
This site backs on to a strip of green reserved for the Melbourne Water Retarding Basin (PUZ1). It defines the edge to a light-industrial zone (B3Z) interrupted by a creek (Merlynston Creek) continuing across to an industrial district of the Safeway distribution centre. The site is part of a floodplain and a buffer between industrial and residential fabric.

Currently the area is used as an off-road bike track and nature reserve, acting as an extension to the backyards of the adjoining residential fabric. It has the potential to allow pedestrians to bypass the meandering streets in the residential fabric as an alternative route. This enables users to discover the natural reserve at the back of the houses, hitherto ignored. (Fig. 146 in red)

The idea behind the tower and dyke formation of the proposal is for the tower to act as a pivot and for the dyke to navigate pedestrians around the back of the houses towards the bridge nearby.

The proposed dyke designates open space out of the existing vague zone by forming an edge, intensifying its use as a recreational area. The proposed intervention aims to maintain the openness while also safeguarding the site from flood thereby increasing public amenity.

Figure 147. Worm's eye view of BRM 3



### 'Pivoting'

The intervention aims to distinguish usable open space from amorphous 'reserve'. The proposed building frames the extent of the useful space left-over defined by the current use as an off-road bike track.

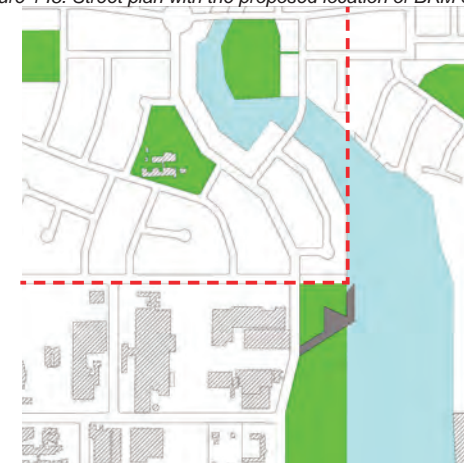
The scale of the proposed building follows the built fabric of the industrial zones to visually connect to the industrial district of the Safeway distribution centre across the creek. The footprint of the building reinforces the angular change implied by the adjacent blocks. The infill is to have minimal impact on the site, in terms of making use of height and openness of its architecture, to frame the open space. (Fig. 147)

In the proposed building, the canopy on the upper floor allows for a roof terrace for the cafe area in the tower which becomes a platform for the golf-driving range.



Figure 149 . EXISTING VIEW of the creek (Merlynston) and the industrial district of the Safeway distribution centre beyond.

Figure 148. Street plan with the proposed location of BRM 3



### Adjacent Open Space

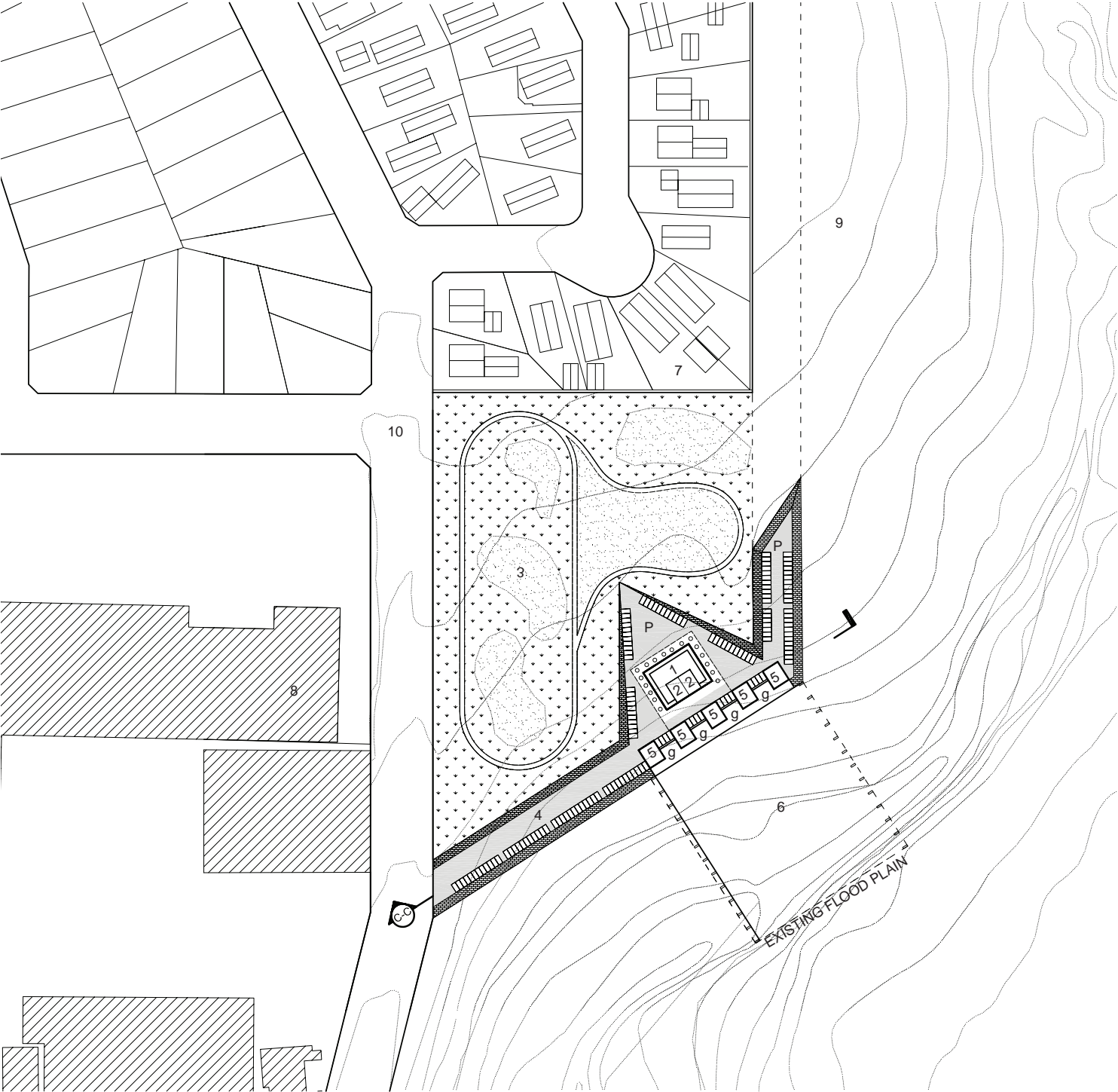
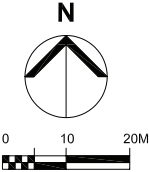
The proposed dyke provides viewing platforms onto the existing off-road bike track and the creek. Its architecture expresses the transient nature of the proposed program in terms of its use as a recreational area and the temporary function of the zone as a flood plain. It also takes advantage of the vista across the creek.

The tower contains additional facilities such as toilets, offices and a cafe area to support the main recreational / sports activities on the site. The amenity tower emphasises the openness of the landscape and acts as a beacon for both the existing residential neighbourhood and the industrial area. The proposed dyke formalises the extent of the current use by extending the arterial loop at the end of the light-industrial area. It gives a landmark significance to its corner junction in meeting with the residential fabric. (Fig. 148 in red dashed)

Figure 150. PROPOSED GROUND FLOOR PLAN

LEGEND:

- P Public car park
- g. Driving range platform
- 1. Cafe / restaurant
- 2. Toilet amenities
- 3. Proposed off-road bike track
- 4. Proposed dyke / walk path
- 5. Relaxation rooms
- 6. Semi-enclosed green (i.e. flood plain)
- 7. Existing single-family dwellings
- 8. Existing light-industrial sheds
- 9. Existing nature reserve / Neighbourhood backyard
- 10. Existing arterial loop





Wing-Configuration

The adjacent residential block to which this SLOAP belongs is curvilinear in shape, following the natural formation of Merlynston Creek.

The proposed footprint of the building emphasises the pivotal role of this SLOAP in forming a contiguous fabric with the adjacent neighbourhood. It also re-activates the nature reserve as a form of alternative circulation, bypassing the residential fabric.

One idea behind the golf driving range is to make use of the transient condition of the flood plain to collect the golf balls as they wash up against the dyke after flooding within the semi-enclosed perimeter walls.

The presence of the site becomes significant from across the creek, and also as a destination for the uninterrupted road marking the end to the vehicular circuit after the roundabout junction further west in the light-industrial area.

LEGEND:

- 1. Proposed office / admin.
- 2. Proposed dyke
- 3. Proposed golf-driving range
- 4. Existing / proposed off-road bike track
- 5. Light-industrial sheds
- 6. Existing single-family homes

Figure 151. PROPOSED BLOCK PLAN

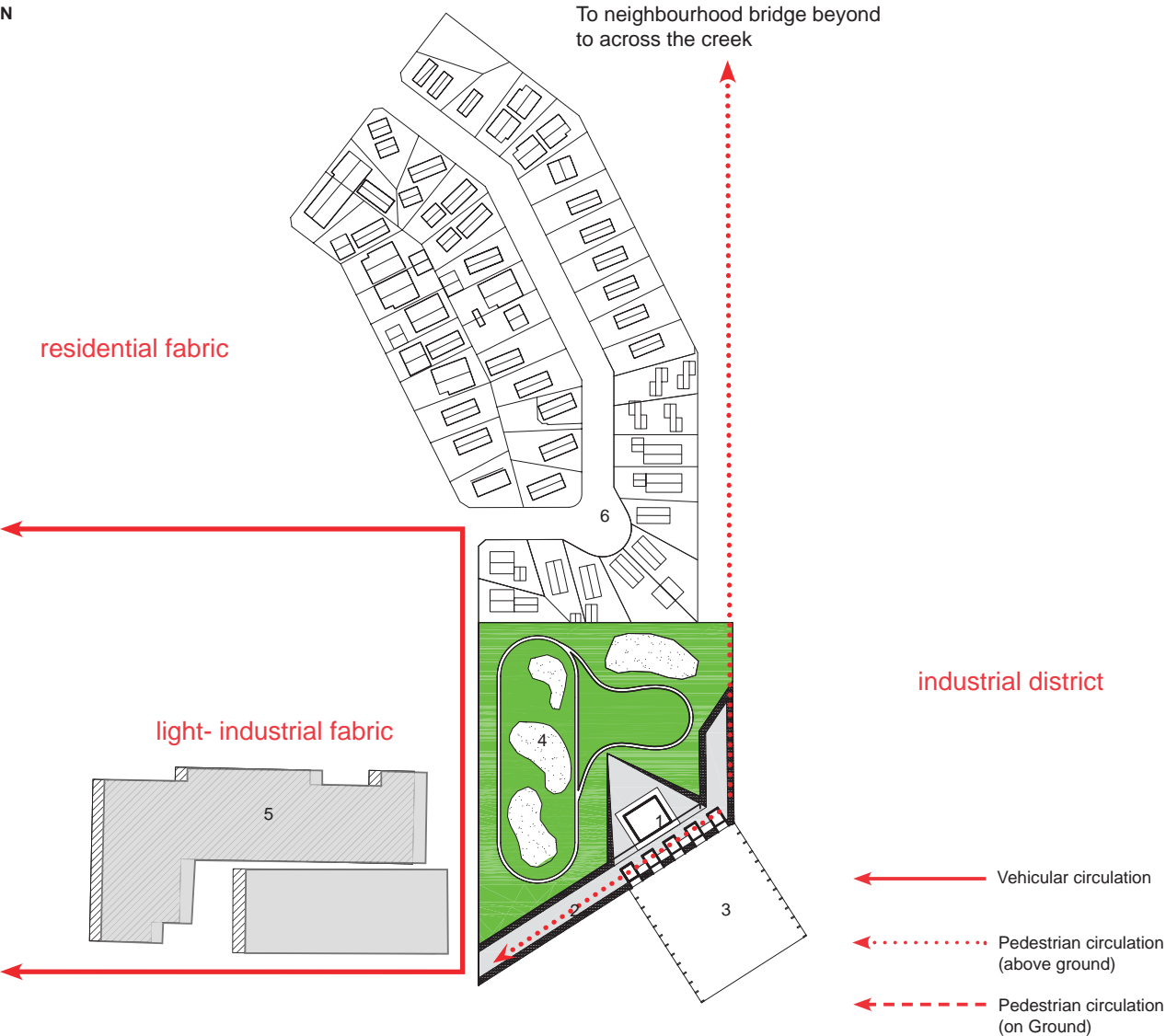


Figure 152. EXISTING VIEW of Merlynston Creek at the edge of the light-industrial zone defined by the arterial road completing the 'loop' to the neighbourhood fabric. Across the creek is the industrial district of the Safeway distribution centre.



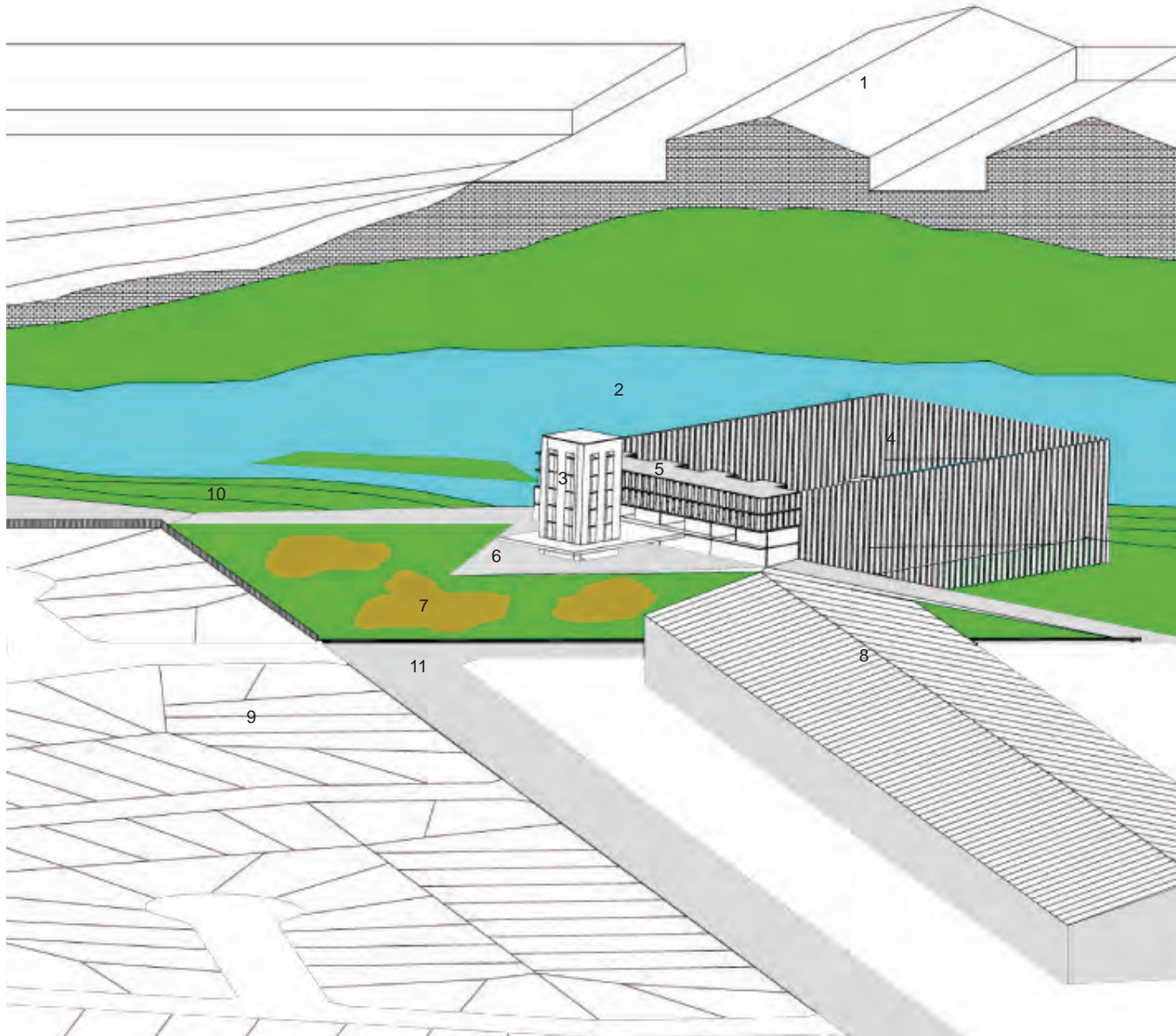


Figure 153. **AXONOMETRIC VIEW** of the proposed building in context showing the adjacency to the existing light-industrial district. Beyond the creek is a the Safeway distribution centre. The tower gives an anchoring point visually for ground users.

1. Safeway distribution centre
2. Merlynston Creek
3. Proposed amenity tower
4. Proposed golf-driving range
5. Proposed golf hitting platforms
6. Proposed dyke / walk path
7. Existing / proposed off-road bike track
8. Light-industrial shed
9. Existing single-family homes
10. Existing nature reserve (i.e. water retarding basin)
11. Arterial road (cnr. of Rigall St. & Dallas Dr.)



Figure 154. **MODEL MONTAGE (BRM 3)** of the proposed building. Aerial view showing the continuation of the street from the industrial area extending in the form of a dyke with the tower taking minimal footprint on the existing site. The directional change is enabled by the constructed ground leading pedestrian circulation around the back of the houses towards the bridge nearby.

- a). Existing industrial sheds
- b). Existing creek / flood zone
- c). Existing open space (off-road bike track)
- d). Adjacent single-storey residential fabric
- e). Proposed recreational centre with golf-driving range

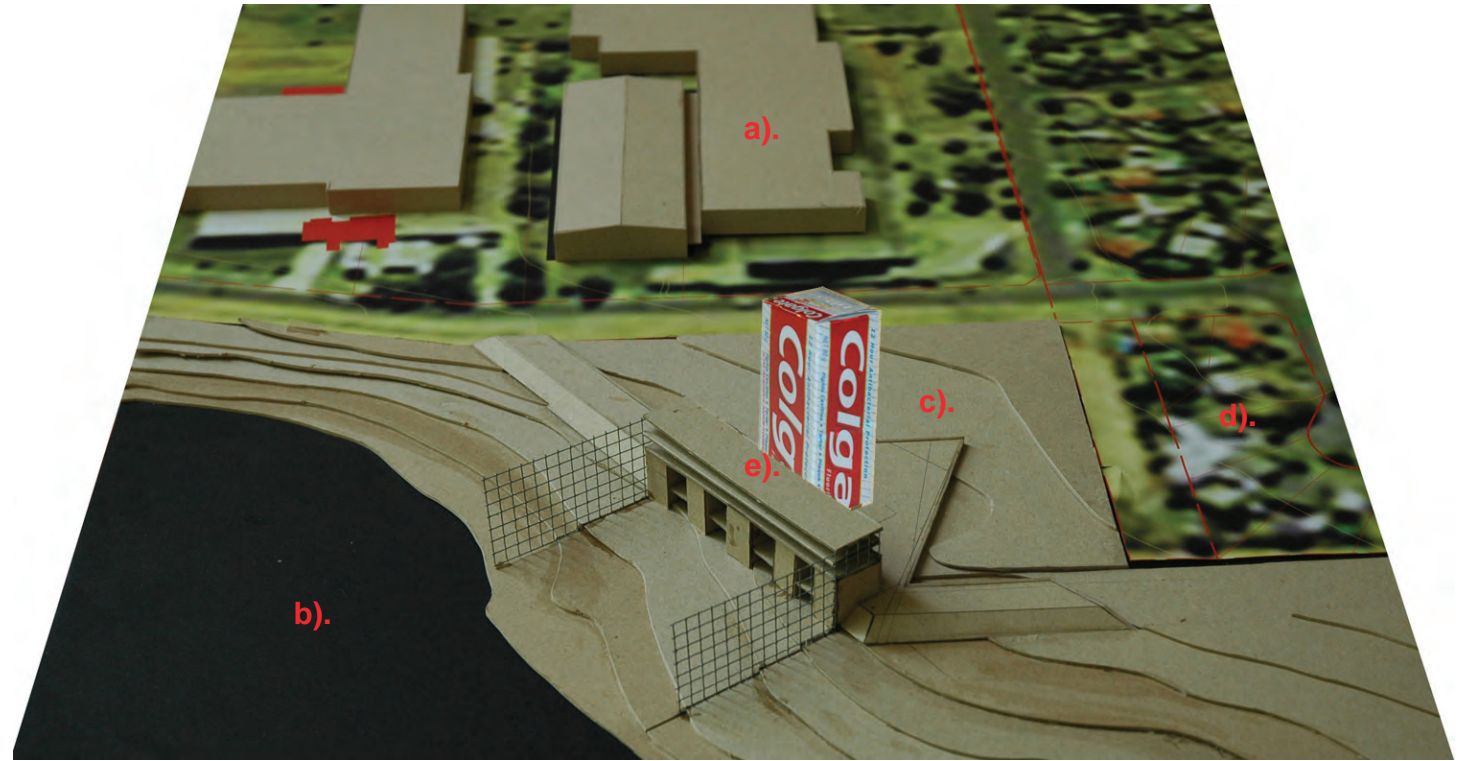


Figure 155. **PROPOSED VIEW OF THE EXISTING (AND RE-DEVELOPED) OFF-ROAD BIKE TRACK** with the amenity tower beyond as a landmark. The site edges Merlynston Creek along Dallas Drive marking the termination of the light-industrial zone.

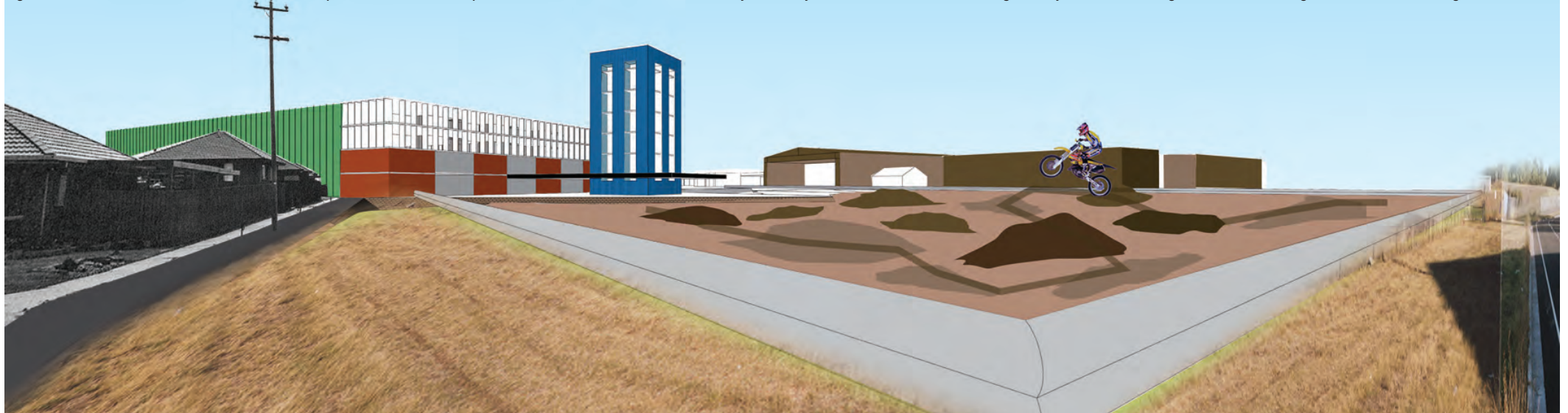




Figure 156. **SECTION C-C:** of the proposed golfing range with mixed-use tower beyond. Mediation of the zone also encourages the connection to the surrounding neighbourhood on the other side of the creek. The tower and other facilities increase the public surveillance and safety of the area through community engagement as well as providing shared community use. (above)

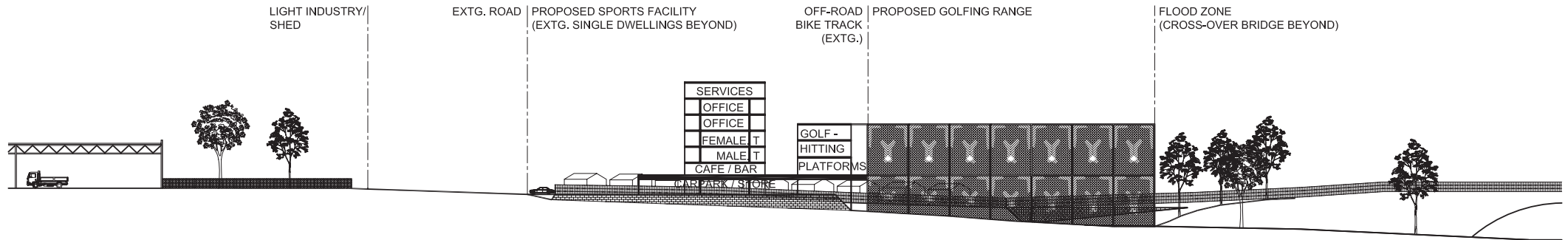
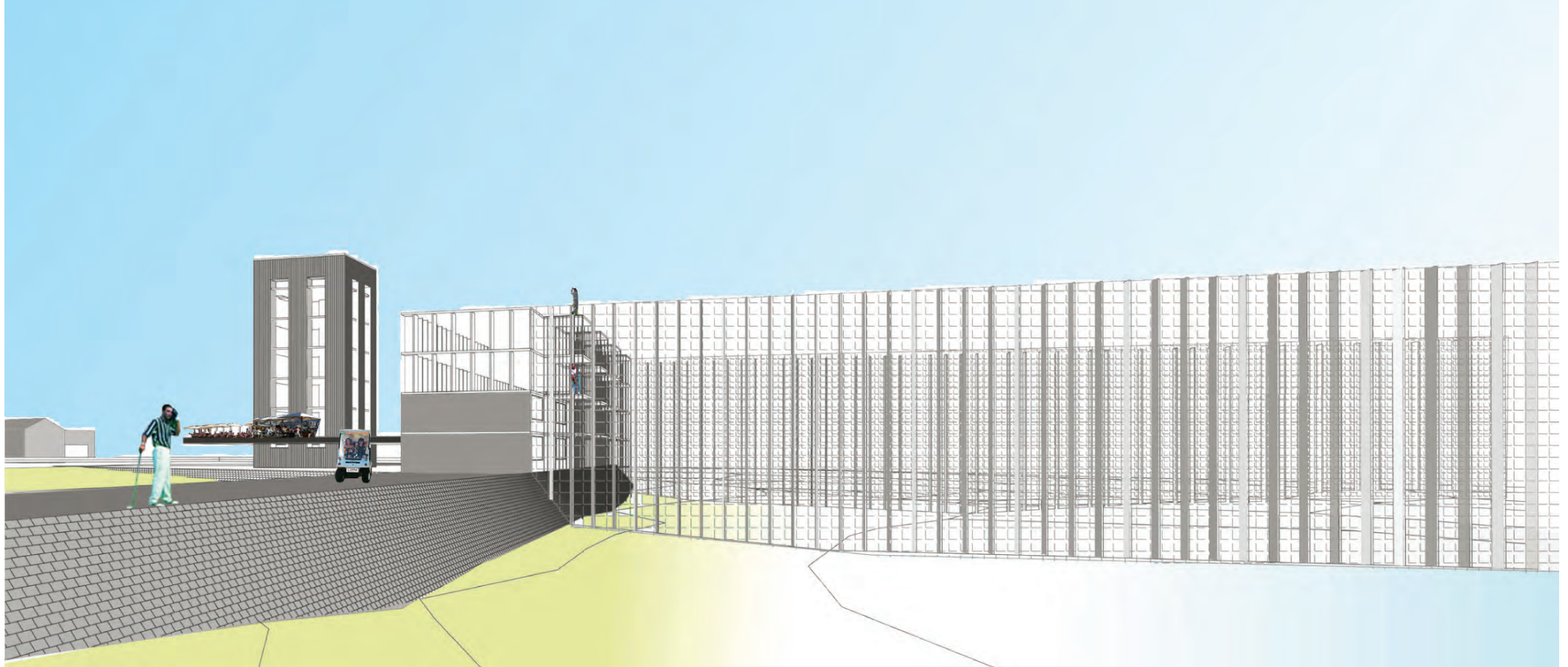


Figure 157. **PROPOSED VIEW OF THE DYKE WALL:** used as protection from flood zone as well as a pedestrian and bicycle path on top. The re-activation of the edge increases the engagement with the existing nature reserve (Water Retarding Basin).





## **Chapter 3 - CONCLUSION**

- 3.1 Conclusion
  - 3.2 Summary Diagrams
  - 3.3 Appendix
- Footnotes  
References  
Acknowledgements

Figure 158.  
Comparative study of the  
proposed interventions  
(OAK1–OAK4) and historical  
precedents (suburban civic  
buildings / Modernist build-  
ings from 1930s to 1970s) in  
the inner city and suburban  
Melbourne (a–c).



Figure 158a. Masonry block of a hostel at the corner of Russell Street and Victoria Parade, Melbourne CBD



Figure 158b. Elevated house with carpark below at a local junction of a road, laneway, South Yarra.



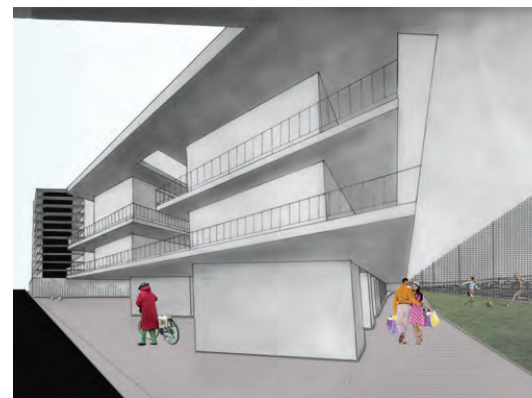
Figure 158c. Temporary-looking structure on top of shops at Melbourne Showgrounds. It is used as a scaffold base for roller coasters during fun fairs held at the venue.

### ‘Landmark’



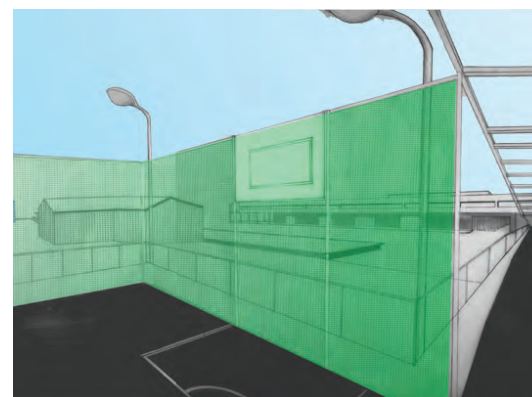
OAK001. View of the clock tower on the proposed four-storey apartment in Oakleigh at the junction of the local roundabout. The row of garages attached to the main block is rendered in stone providing a backdrop to the single-family dwellings with lawns opposite the street.

### ‘Constructed Ground’



OAK002. Proposed elevated warehouse type residence with a paved ground level for pedestrians next to the railway easement leading to Oakleigh station precinct.

### ‘Verticality’ (Vantage points)



OAK004. Bus apron and basketball court attached to the proposed overpass at Huntingdale Station, with street lighting and advertisement hoarding.

## 3.1 CONCLUSION

Spaces Left-Over After Planning (SLOAP) can be either vacant or occupied, depending on whether they are intentionally left (as part of development or infill) or accidentally caused (by the process of infrastructural and other development). Some are more potent than others in manifesting the qualities of places of urban interest. The sizes of SLOAP can vary from a local roundabout junction to the scale of extended infrastructural easements. SLOAP are both part of the macro-scale network of open space (e.g. nature strips, electrical transmission easements, etc.) and being “terrain vague” in local conditions, e.g. non-designated green space, derelict blocks, etc.

The consistent theme across the variety of SLOAP is their position as marginal land which can provide the opportunities for architectural and landscape interventions outside the norm of suburban developments. My projects all make use of this potential to reflect on the current situation in Melbourne of the idiosyncratic relationship between developed / undeveloped sites and the concept of ‘belonging’ as it applies to the suburban context. The projects explore how architecture can synthesise planning with the integration of neighbourhood amenities by utilizing marginal land often in iconic ways, all of which also improve community amenity.

Open spaces need not necessarily be maintained in all cases. In fact, it is sometimes more effective to build on a leftover space to signify its ‘suburban-ness’ in built form. A series of buildings on SLOAP, can incorporate ‘one-off characteristics as a signature for architectural intervention.’<sup>42</sup> This makes them a separate typology in themselves, pursuing the notion of local landmarks and adding to the local taxonomy of the vernacular buildings.

When formalised as built interventions, the inherent characteristics of SLOAP as intersections and buffers become more obvious. SLOAP provide unique and idiosyncratic possibilities for intervening in suburban context in positive ways, however not as a facelift but with a ‘vital injection’<sup>43</sup> into the suburban fabric for developing a sense for the awareness and presence of community amenities.



Buildings in Melbourne exemplify my aspiration to utilise medium-scale buildings to reinforce and anchor the suburban context. They typify the institutionalisation of the intermediate fabric for the densification of suburbs, and provide a 'secondary grain' for diversifying the built environment.

The quality of their architecture imparts a certain robustness associated with modernist iconography. Without the heroics of monuments, and in the context of suburbs, they have a resonance with the scale of the surrounding single-family dwellings. Modernist examples in local typologies include suburban motels, grandstands (using repetition and multiplication) and, in some cases, larger-scale programs such as multi-dwelling housing.

My proposed interventions echo some of the idiosyncratic buildings in the Melbourne CBD and inner city suburbs as a series of 'infills'. In turn, they suggest a type of development suitable for accommodating the densification of the suburbs. This is an alternative to the grafting of dense fabric that occurs with the construction of nodal centres. Instead my technique promotes the natural growth of suburbs to accommodate 'spill' in relationship to infrastructural growth in order to avoid 'sprawl' associated with wider suburban expansion (mono-cultural suburbs). This can similarly be applied to some of the large land plots still leftover in metropolitan Melbourne (e.g. government surplus, Crown, and council lands).

My technique for occupying SLOAP opts for smaller development parcels, promoting initiatives for local councils and realistically budgeted entrepreneurial responses. With a more contextual approach, chances are better for the survival of new developments, to be sustained by an existing neighbourhood fabric. I also set architectural precedents for an appropriate scale of development. This contrasts with the master-planning approach of large-scale developments and instead involves a strategic response that considers both large (i.e. infrastructural diagonals and non-diagonals) and small (e.g. triangle plots, odd corners, etc.) scale potential for cultivating local meanings and does not ignore current formal (e.g. school drop-off areas) and informal (e.g. household junk storage) uses.



Figure 158d: An historic building in front of a highrise now used as an annex to the complex, St. Kilda Road



Fig 158e: Roof and side profile of Hunter Grandstand at Melbourne Showgrounds, Flemington.



Fig. 158f: Through-road in a residential apartment complex at Leicester Street, Carlton, inner city Melbourne

'Foreground / Background'

'Destination'

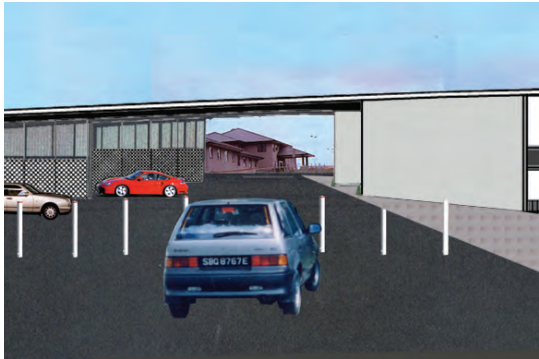
'Porosity'



WAV1: Proposed recycling centre (in front) and tennis / squash club (beyond) forming a backdrop to the adjacent local church.



WAV2: Proposed water processing plant / swimming centre at the dead-end street in Waverley Park. The swimming centre has a garden centre tucked below its grandstand above.



WAV3: Proposed view of the walkway to existing shopping centre (Waverley Gardens) in between the dwelling units (right) and garden allotments (left) in the proposed collective housing.

Figure 158. Comparative study of the proposed interventions (WAV1-WAV3) and historical precedents (suburban civic buildings / Modernist buildings from 1930s to 1970s) in the inner city and suburban Melbourne (d-f).

Figure 158.  
Comparative study of the  
proposed interventions  
(BRM1~BRM3) and historical  
precedents (suburban civic  
buildings / Modernist build-  
ings from 1930s to 1970s)  
in inner city and suburban  
Melbourne (g~i).



Fig. 158g. View of a classroom amidst an area of built-up fabric,  
LaTrobe Street, Melbourne CBD.



Fig. 158h: Repetition of units on the facade of a suburban  
motel at Parkville, corner of Victoria Parade and Park Street.



Fig. 158i. Dogshow lawn next to the railway line at Melbourne  
Showgrounds, Flemington.

### 'Layering of Views'



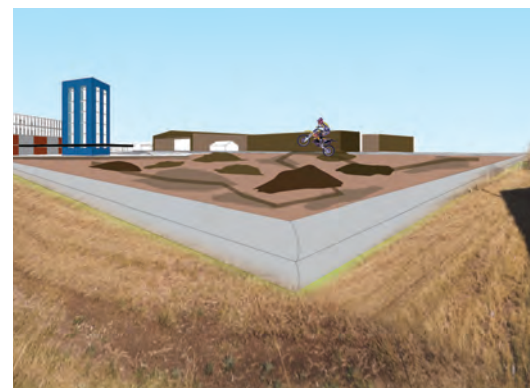
BRM1. View of the proposed post office (ground level) and local  
police station above at crossing of the T-junction of a primary  
school and a maternity clinic at Broadmeadows



BRM2. Proposed row housing and SOHO facing the main street  
at Broadmeadows, looking back at existing landmark, the Eric-  
son headquarters building.

### 'Local Vista'

### 'Figurative Open Space'



BRM3. Proposed off-road bike track at Broadmeadows, located  
between an industrial and residential zone, using a flood plain.

My three strategies are aimed at dispersing the centrality allocated to the official town centre to provide alternative points of interface between residential fabric and infrastructure. This means architecture facilitates the benefits of decentralisation.

The strategy of 'Reinforcement' at Oakleigh, for example is an institutionalisation of the infrastructural development along the railway line to form a cohesive urbanisation on both sides, rather than the separation of zones caused by the infrastructure acting as a boundary.

'Stitching' at Waverley describes the formation both of implied and visual contiguity of the sub-urban fabric over the infrastructural boundary to overcome the isolation of enclaves caused by the impact of Monash Freeway. Stitching is achieved through the use of SLOAP attached to more traditional infrastructure, in this case, the transmission line easement.

Broadmeadows on the other hand, moves away from the influence of the infrastructural diagonal and introduces secondary nodes to form a circuit for connecting existing outpost minor nodes with the town centre. The alternative nodes then encompass other urban structures that inform the patchwork formation of the current suburban fabric.

The focus of my research has been to prioritise the selection of appropriate sites (SLOAP) for the purposes of both the diversification of building types and the densification of suburbs.

Converting SLOAP into built fabric is not just about maximising their plot ratio but also quantifies them in terms of their contribution to the betterment of a neighbourhood context. This requires an understanding of their origin and how they have evolved to become informal parts of the civic realm and make possible a more user-friendly environment in shaping suburbs, by incorporating existing uses (e.g. walkways, recreational activities, etc.), addressing informal and formal frontages (i.e. back yard versus street front), and extending rights to access, based on the preservation of cultural meanings attached to them.

My proposed projects articulate a suburban



meaning for densification, in terms of strategies such as increasing frontages, preserving the porosity of the urban fabric and enabling access. These issues are considered important secondary functions to my proposed buildings.

In that sense, my buildings do not enforce the city and its public spaces upon the current suburban context, but actively engage local experience in the creation of new suburban civic realm.

My architecture also accommodates the customisation of building elements to enable the virtues of dense forms<sup>44</sup> to enhance the tectonic experience of suburbs. This is done by introducing landmarks, benefiting visual connection to the larger context of neighbourhoods by incorporating local vistas, layering the current suburban fabric with new dimensions of height, mass and vantage points.

My civic programs aim to give punctuation to the often monotonous suburban fabric, as opposed to following the heterogeneity of zoning, the hierarchy of nodal structure and the separation of districts. I believe the latter to be counter-productive as it involves facing further isolation within the suburban fabric, by the formation of enclaves.

Upon reconsidering the utilisation of Spaces-Left-Over After Planning (SLOAP), I have gained a deeper understanding of the consequences of architecture in having an effect on the relationship between built and un-built environment. Rather than placing the emphasis on the plot itself, formalising the adjacency and consolidation of SLOAP in relation to other open spaces can be an impetus for construction and contribute to community.

To that end, my buildings on SLOAP legitimise and make use of these marginalised but valuable land resources by allocating new forms, uses and activities to cultivate the suburban civic realm.

### 3.2 Summary Diagrams

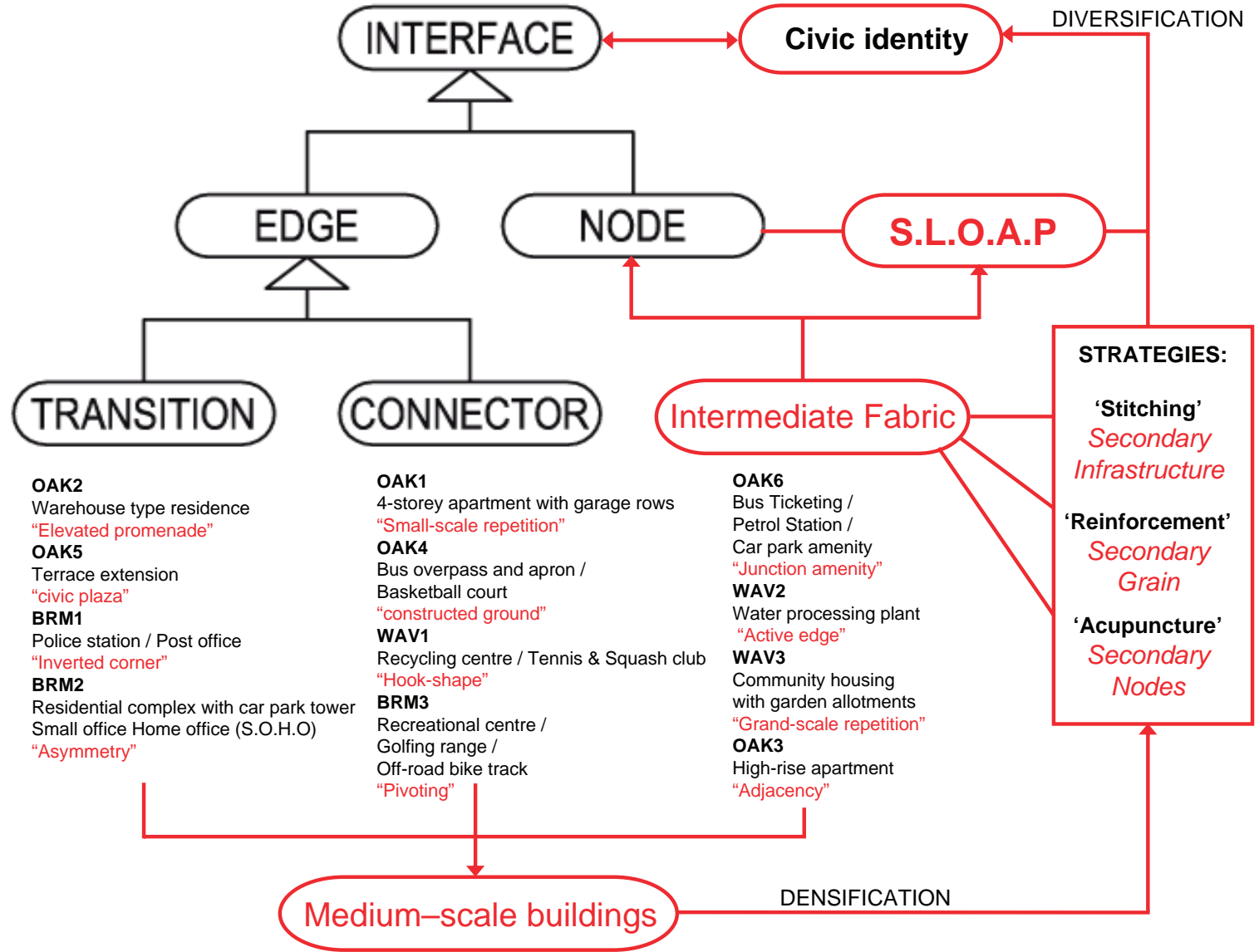
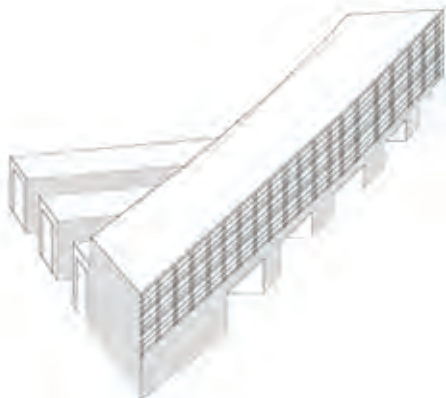


Figure 159. (right)  
Reconsidering SLOAP in terms of their contribution to diversification and densification of suburbs, ultimately leading to the civic identity of suburbs.

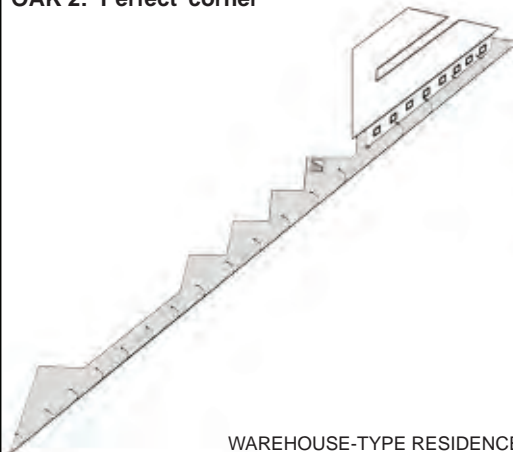
Figure 160. (following page) Taxonomy of the various proposed intervention in this work on SLOAP.

**OAK 1: 'Wedge' (Medium)**



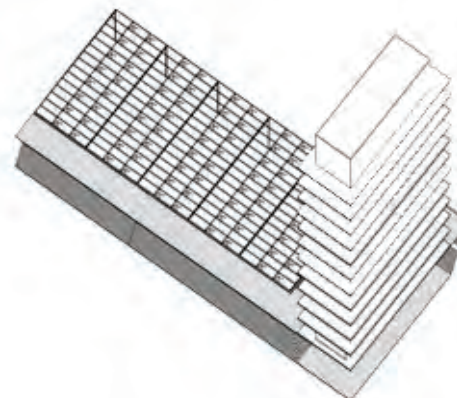
FOUR-STOREY APARTMENT  
WITH ROW GARAGES

**OAK 2: 'Perfect' corner**



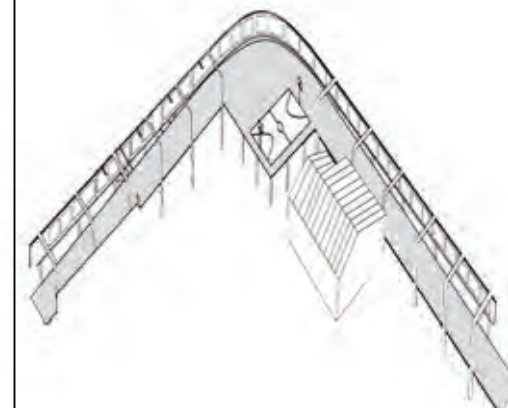
WAREHOUSE-TYPE RESIDENCE  
ATTACHED TO A ELEVATED PROMENADE

**OAK 3: 'T-junction'**



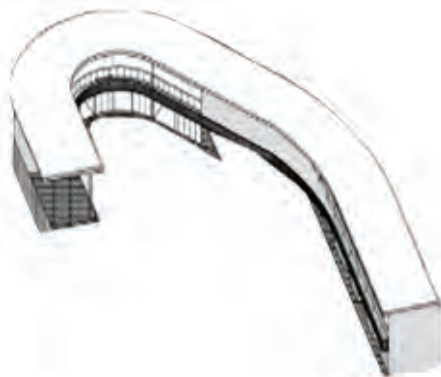
HIGH-RISE APARTMENT WITH  
A PUBLIC PODIUM (LAWN BOWLS FIELD)

**OAK 4: 'Constructed Ground'**



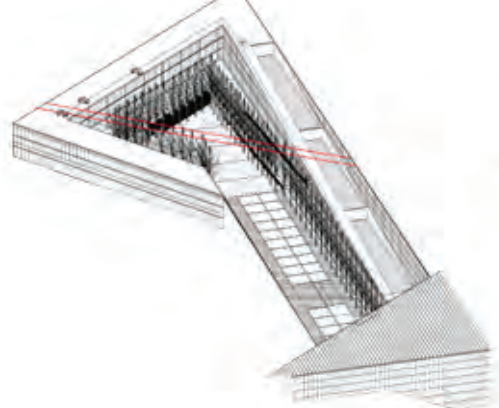
BUS OVERHEAD-BRIDGE  
WITH A BASKETBALL APRON

**WAV 1: 'Junction' (Electrical Transmission Line)**



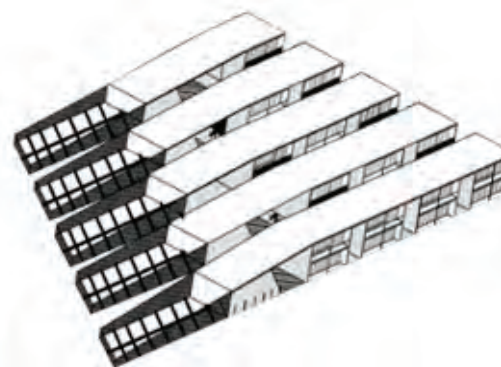
RECYCLING CENTRE /  
TENNIS AND SQUASH CLUB

**WAV 2: 'Wedge' (Large)**



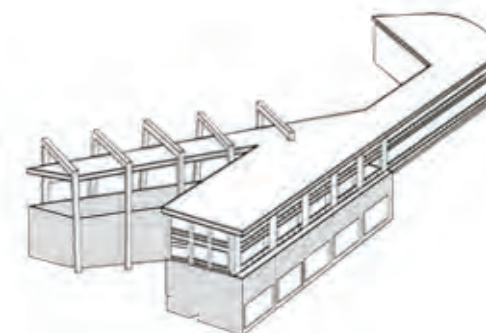
WATER PROCESSING PLANT /  
SWIMMING AND GARDEN CENTRE

**WAV 3: 'Easement'**



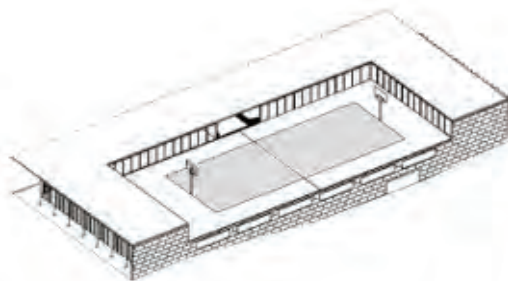
COMMUNITY HOUSING  
WITH GARDEN ALLOTMENTS

**OAK 5: 'Wedge' (Small)**



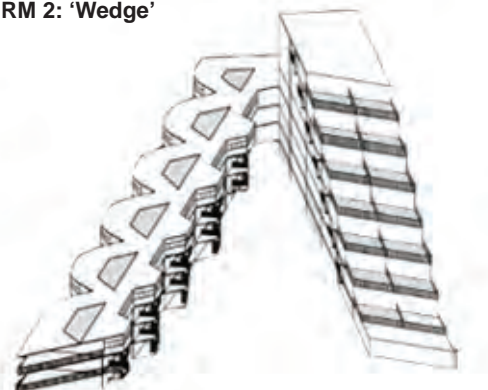
TERRACE HOUSING WITH RETAIL

**BRM 1: 'Inverted' corner**



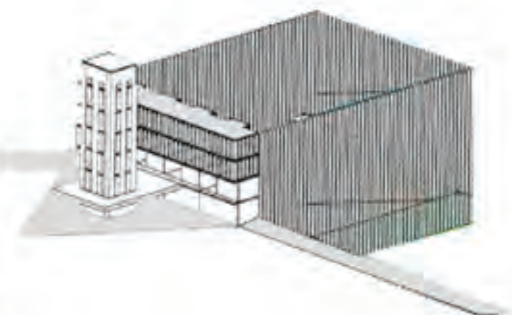
POLICE STATION / POST OFFICE

**BRM 2: 'Wedge'**



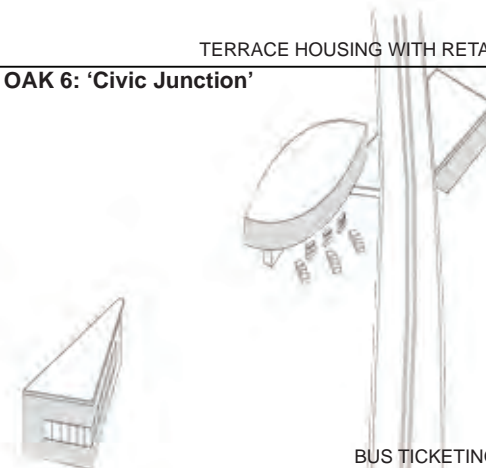
RESIDENTIAL COMPLEX WITH CARPARK TOWER /  
SMALL OFFICE HOME OFFICE(SOHO)

**BRM 3: 'Buffer'**



RECREATIONAL TOWER /  
GOLF DRIVING RANGE AND  
OFF-ROAD BIKE TRACK

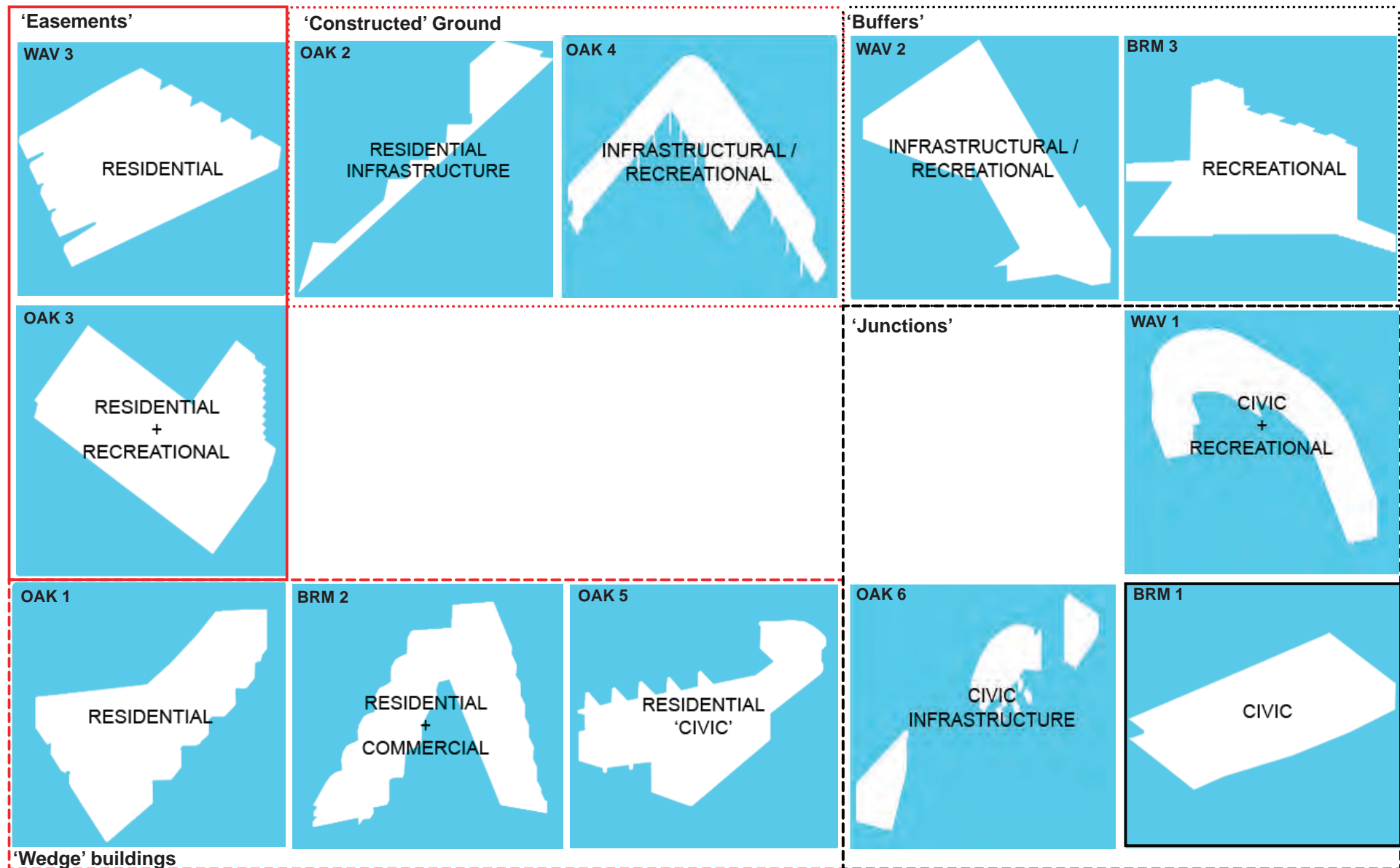
**OAK 6: 'Civic Junction'**



BUS TICKETING /  
PETROL STATION /  
CARPARK AMENITY



Figure 161. Degree of the variation to mixed-use development towards building a 'civic' identity with the utilisation of the different type of SLOAP



### **3.3 Appendix**

Footnotes

References

Acknowledgements



## FOOTNOTES:

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3. Ignasi de Sola Morales' definition of "Terrain Vague" refers to larger and perhaps less precisely defined areas of territory in its expectant state, potentially exploitable but already possessing some kind of definition in its property to which we are external', *Quaderns*, p.42, 1996
4. Nixon F., describes this concern as: 'The centre is increasingly the domain of the elite. The periphery represents opportunities. It is the realm of the marginalised. To ensure an equitable city its nodes must be duplicated, its connectors contracted and its transition elongated', *Architect Victoria*, Autumn, 2003, p.12.
5. Lay M., Melbourne Miles, *Story of Melbourne's Roads* in "Compass Road", p. 180
6. The definition of gated community is controversial. In my case study on the Waverley Park development, I refer to this in relation to connecting community with its surroundings. De Cauter describes these gated communities, as 'today's walled gardens or courtyards, and dubs them "bunkers".
7. Geyter X. De, *After-Sprawl, Research for the contemporary city*, p.25.
8. Secchi B., LAND DESIGN 2, *Contemporary Public Space*, in "Unvolumetric Architecture", p.287
9. Geyter, X. De, *Op cit*, p.25
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17. *Ibid*, p. 8-9
18. *Ibid*, p. 8-9
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20. Day N. , *Heroic Melbourne, Architecture of the 1950's*, p.4
21. Lahti J., Chapter: Tapiolaraitti - the backbone of the pedestrian precinct, TAPIOLA, Life and architecture, p.76
22. Vidler, P., *Theorizing a new agenda for Architecture*, Third typology, pp. 260-263
23. Vidler, P., *Ibid*, p.260
24. Ignasi de Sola-Morales, *Op cit*, Terrain Vague, p.39
25. Vidler P., *Op cit.* p. 261
26. Morales. I, *Op cit.*, 'Terrain Vague', p.42
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28. Tuomi T., *Life and Architecture*, Tapiola, p.25
29. Fishman R., *Op cit.*, *Elder Statesman*, p. 81
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31. Lahti J., Tapiolaraitti – the backbone of the pedestrian precinct, p.76
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34. Rowe C, *Collage City*, THE MIT Press, Cambridge, 1978, p.78
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36. *ibid.*, p.262
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40. <http://en.wikipedia.org/wiki/Easements>, <http://homebuying.about.com/od/glossary/g/Easements.htm>, Definition of Easement,
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